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ABSTRACT

This bibliography surveys the literature in the developing field of forecasting, which incorporates policy-formation, planning, decision-making, and the policy sciences in general. Entries are organized into five separate sections. The first section, Alternative Futures, surveys the general literature on the future, including many historical references. The second section, Policy-Making, includes some of the best introductions to how futures-inputs might be incorporated into the policy-making process. Section 3, Planning, covers both the academically oriented and new, systems-oriented approaches to urban planning. The fourth, Forecasting Techniques, covers many of the methodological issues involved in forecasting and futures-planning. The final section, Selected Forecasting Techniques, is a partial listing of techniques that might prove useful for urban planning and management purposes. Within each section, citations are listed alphabetically by author's name. (Author/JG)

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INTEGRATIVE FORECASTING: Literature Survey

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INTEGRATIVE FORECASTING: LITERATURE SURVEY

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This bibliography surveys the literature in the developing area of "forecasting"--incorporating policy formation, planning, decision-making and, the "policy sciences," in general. The term, "integrative forecasting," was coined by Erich Jantsch, who uses the term to denote approaches to forecasting (policy formation, planning and decision-making) which cut across many dimensions, in particular social, economic, political, technological, psychological, and anthropological. This bibliography reflects much of the same spirit as it attempts to review a very diverse literature on the "future."

The bibliography is organized into five sections: ALTERNATIVE FUTURES, POLICY-MAKING, PLANNING, FORECASTING TECHNIQUES, AND SELECTED FORECASTING TECHNIQUES. Since many of the references fall into several, if not all, of these categories, many of the entries were somewhat arbitrarily placed.

The first section, ALTERNATIVE FUTURES, surveys the general literature written on the future, including many historical references. Required readings for any interested in historical forecasts are: ANTICIPATIONS OF THE REACTION OF MECHANICAL AND SCIENTIFIC PROGRESS UPON HUMAN LIFE AND THOUGHT (H.G. Wells, 1902); THE NEXT HUNDRED YEARS (C.C. Furnas, 1936); TECHNOLOGICAL TRENDS AND NATIONAL POLICY (National Resources Committee, 1937); and RECENT SOCIAL TRENDS IN THE UNITED STATES (President's Research Committee on Social Trends, 1933). More recent "classics" would include: THE FORESEEABLE FUTURE (Sir George Thompson, 1955); THE NEXT HUNDRED YEARS (Harrison Brown, James Bonner, and John Weir, 1957); INVENTING THE FUTURE (Dennis Gabor, 1964); and PROFILES OF THE FUTURE (Arthur C. Clarke, 1963). Among the best of the current crop of futures-books are: THE YEAR 2000 (Herman Kahn and Anthony J. Wiener, 1967); THE FUTURE OF THE FUTURE (John McHale, 1969); and FUTURE SHOCK (Alvin Toffler, 1970).

Some of the best introductions to how futures-inputs might be incorporated into the POLICY-MAKING process are found in the second section. Among the best, although at opposite ends of the philosophical pole, are THE INTELLIGENCE OF DEMOCRACY (Charles E. Lindblom, 1965)--advocating the "disjointed incrementalism" approach--

and PUBLIC POLICY-MAKING REEXAMINED (Yehezkel Dror, 1968)--advocating a normative, systems view of policy-making. Excellent frameworks for policy-making can also be found in the works of Sir Geoffrey Vickers: THE ART OF JUDGEMENT (1965), TOWARD A SOCIOLOGY OF MANAGEMENT (1967), and VALUE SYSTEMS AND SOCIAL PROCESS (1968). An informative set of case studies of policy-making is contained in THE STUDY OF POLICY FORMATION (Raymond A. Bauer and Kenneth J. Gergen, 1968).

The third section on PLANNING covers both innovative approaches to urban planning, written largely by academician/practioneers, and to a new, "futures-creative," normative, systems-oriented type of planning represented by writers like Ozbekhan, Churchman, Boulding, Vickers, Gross, Beer, Michael and Jantsch. The best of the first group are: THE CITY PLANNING PROCESS (Alan Altshuler, 1965); the many contributions of John Friedmann, but particularly his article, "The future of comprehensive urban planning: a critique" (1971); CITY POLITICS AND PLANNING (Francine F. Rabinovitz, 1969); PEOPLE AND PLANS (Herbert J. Gans, 1968); and the many articles of Melvin M. Webber, particularly "Planning in an environment of change" (1969). A thorough history of the city planning movement in the United States can be found in: AMERICAN CITY PLANNING SINCE 1890 (Mel Scott, 1969).

Of the second group, the urban planner should be familiar with the work represented in the following books: C. West Churchman's CHALLENGE TO REASON (1968) and the DESIGN OF INQUIRING SYSTEMS (1970); Hasan Ozbekhan's book-length manuscript, "Toward a general theory of planning" (1969); Geoffrey Vicker's VALUE SYSTEMS AND SOCIAL PROCESS (1968) and FREEDOM IN A ROCKING BOAT (published in England in 1970, but not yet available in the U.S.); Bertram Gross' long paper, "Planning in an era of social revolution (1971); THE UNPREPARED SOCIETY (Donald N. Michael, 1968); DECISION & CONTROL (Stafford Beer, 1966); and PERSPECTIVES OF PLANNING (Erich Jantsch, ed., 1969).

The fourth section, FORECASTING TECHNIQUES, covers many of the methodological issues involved in forecasting and futures-planning. The best single source for covering a wide range of forecasting techniques, although now out-of-date (and having the serious short-coming of being essentially a contextless dictionary of techniques), is TECHNOLOGICAL FORECASTING IN PERSPECTIVE (Erich Jantsch, 1967). A more recent review of techniques is TECHNOLOGICAL FORECASTING AND LONG-RANGE PLANNING (Robert U. Ayres, 1969). An insightful paper on the methodology of forecasting is "The technology of forecasting and the forecasting of technology" (Marvin Adelson, 1968). Others to be read first are: "On the epistemology of the inexact sciences" (Olar Helmer and Nicholas Rescher, 1960); SOCIAL TECHNOLOGY (Olaf Helmer, 1966); and "Forecasting and technological forecasting (Donald A. Schon, 1967). Useful collections of "think-pieces" can be found in TECHNOLOGICAL

FORECASTING FOR INDUSTRY AND GOVERNMENT (James R. Bright, 1968) and VALUES AND THE FUTURE (Kurt Baier and Nicholas Rescher, 1969).

The final section is a partial listing of SELECTED FORECASTING TECHNIQUES that might prove useful for urban planning and management purposes. The techniques include: brainstorming, contextual mapping, cross-impact matrix techniques and Delphi (both techniques still being developed by Olaf Helmer and T.J. Gordon of the Institute for the Future); gaming techniques (particularly those being developed by Abt, Duke, Meier, House, Feldt, Gordon et al.), morphological analysis (being developed by Fritz Zwicky and A.G. Wilson), scenario-writing (pioneered by Herman Kahn), science-fiction, simulation, social indicators, systems analysis, and technology assessment.

Although it is particularly difficult to keep up-to-date with the literature in a field that has now become overloaded with information, some of the best reading can be found in the following journals: THE FUTURIST (World Future Society); FUTURES (IPC, England); TECHNO-FORECASTING AND SOCIAL CHANGE (American Elsevier); and POLICY SCIENCES (American Elsevier). Two other sources of continuous information for planning and forecasting are the publications of the RAND Corporation (Santa Monica, California, and New York City) and the Institute for the Future (Middletown, Connecticut).

Comments and suggestions for revision of this bibliography are requested. The author's present address is:

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TABLE OF CONTENTS

	Page
ALTERNATIVE FUTURES	4
POLICY-MAKING	20
PLANNING	25
FORECASTING TECHNIQUES	42
SELECTED FORECASTING TECHNIQUES	51

ALTERNATIVE FUTURES

The American Assembly (Columbia University) GOALS FOR AMERICANS. Englewood Cliffs, N.J.: Prentice-Hall. 1960. 372 p.

Anderson, Stanford (ed.) PLANNING FOR DIVERSITY AND CHOICE. Possible futures and their relations to the man-controlled environment. Cambridge: MIT Press. 1968. 340 p.

ARCHITECTURAL DESIGN. Special issue. 2000+. February 1967. pp. 64-101.

Armytage, W.H.G. THE RISE OF THE TECHNOCRATS. A social history. London: Routledge and Kegan Paul. 1965. 448 p.

Asimov, Isaac. IS ANYONE THERE? New York: ACE. 1967. 319 p.

_____. Life in 1990. SCIENCE DIGEST. August 1965. pp. 63-70.

Baade, Fritz. THE RACE TO THE YEAR 2000. Our future: a paradise of the suicide of mankind. Garden City, N.Y.: Doubleday. 1962. 246 p.

Beckwith, Burnham P. THE NEXT 500 YEARS. Scientific predictions of major social trends. New York: Exposition Press. 1967. 341 p.

Bell, Daniel. The Commission on the Year 2000. FUTURES. Vol. 2, no. 3. September 1970. pp. 263-268.

_____. THE END OF IDEOLOGY. On the exhaustion of political ideas in the fifties. New York: Free Press. 1960. 474 p.

_____. The future as zeitgeist. THE NEW LEADER. October 28, 1963. pp. 17-18.

_____. The post-industrial society. In TECHNOLOGY AND SOCIAL CHANGE (Eli Ginzberg, ed.). New York: Columbia University Press. 1964. pp. 44-59.

_____. The study of the future. THE PUBLIC INTEREST. Fall 1965. pp. 119-130.

_____. Toward the year 2000: work in progress. DAEDALUS. Summer 1967. Vol. 96, no. 3.

Bellamy, Edward. LOOKING BACKWARD: 2000-1887. New York: The Modern Library. 1887; 1951. 276 p.

Bellman, R.E. Science, technology and the automation explosion. Santa Monica: RAND. P-2908. May 1964.

Bennis, Warren G., & P.E. Slater. THE TEMPORARY SOCIETY. New York: Harper & Row. 1968.

Bestuzhev, L. How to forecast world's future--Asimov disputed. CURRENT DIGEST OF THE SOVIET PRESS. Vol. 19, no. 20. pp. 9-10.

Birkenhead, The Earl of. THE WORLD IN 2030 AD. New York: Brewer and Warren. 1930. 215 p.

Boettinger, Henry M. Technology tomorrow: impact and implications. BELL TELEPHONE MAGAZINE. Vol. 50, no. 1. January/February 1971. pp. 20-25.

Boulding, Kenneth E. After civilization what? BULLETIN OF THE ATOMIC SCIENTISTS. October 1962. pp. 2-6.

_____. BEYOND ECONOMICS. Essays on society, religion and ethics. Ann Arbor: University of Michigan Press. 1968. 302 pp.

_____. The death of the city: a frightened look at post-civilization. In THE HISTORIAN AND THE CITY (O. Handlin and J. Burchard, eds.). 1963. pp. 133-145.

_____. The economics of the coming Spaceship Earth. In ENVIRONMENTAL QUALITY IN A GROWING ECONOMY. Baltimore: Johns Hopkins Press. 1966. pp. 3-14.

_____. Expecting the unexpected--the uncertain future of knowledge. In CONFERENCE ON DESIGNING EDUCATION FOR THE FUTURE. (E. Morphet and C. Ryan, eds.). July 1966.

_____. THE IMAGE. Knowledge in life and society. Ann Arbor: University of Michigan Press. 1961. 175 p.

_____. THE MEANING OF THE 20th CENTURY. The great transition. New York: Harper. 1964. 208 p.

_____. A PRIMER ON SOCIAL DYNAMICS. History as dialectics and development. New York: The Free Press. 1970. 153 pp.

Boyko, Hugo (ed.). SCIENCE AND THE FUTURE OF MANKIND. The Hague: Uitgevery. 1961. 380 p.

Braden, William. THE AGE OF AQUARIUS. Technology and the cultural revolution. Chicago: Quadrangle. 1970. 308 pp.

Bronwell, Arthur B. (ed.). SCIENCE AND TECHNOLOGY IN THE WORLD OF THE FUTURE. New York: Wiley-Interscience. 1970. 394 pp.

Brzezinski, Bbigniew. BETWEEN TWO AGES. America's role in the Technetronic Era. New York: Viking. 1970. 334 pp.

Brown, Harrison. THE CHALLENGE OF MAN'S FUTURE. An inquiry concerning the condition of man during the years that lie ahead. New York: Viking. 1954. 290 p.

_____, James Bonner and John Weir. THE NEXT HUNDRED YEARS. Man's natural and technological resources. A discussion prepared for leaders of American industry. New York: Viking. 1957. 193 p.

_____. THE NEXT NINETY YEARS. Pasadena: California Institute of Technology. 1967. 186 p.

Buckout, Robert (ed.). TOWARD SOCIAL CHANGE. A handbook for those who will. New York: Harper & Row. 1971. 480 p.

Bugliarello, G. Large socio-technological systems: human conflict and human design. In GLOBAL SYSTEMS DYNAMICS (E.O. Attinger, ed.). 1970. pp. 149-155.

Burke, John (ed.). THE NEW TECHNOLOGY AND HUMAN VALUES. New York: Wadsworth. 1967.

Calder, Nigel. THE ENVIRONMENT GAME. London: Secker & Warburg. 1967. 240 p.

_____. Goals, foresight and politics. In MANKIND 2000 (R. Jungk and J. Galtung, eds.). 1969. pp. 251-255.

_____. TECHNOPOLIS. Social control of the uses of science. New York: Simon and Schuster. 1969, 1970. 376 pp.

_____. THE WORLD IN 1984. Baltimore: Pelican. 1965. 2 Vols. 420 p.

Charney, Melvin. Environmental conjecture: in the jungle of the grand prediction. In PLANNING FOR DIVERSITY AND CHOICE (S. Anderson, ed.). 1968. pp. 313-326.

Chase, Stuart. THE MOST PROBABLE WORLD. Baltimore: Pelican. 1968. 239 p.

Clarke, Arthur C. A glimpse of the future--near and otherwise. AIA JOURNAL. August 1967. pp. 52-56.

_____. PROFILES OF THE FUTURE. An inquiry into the limits of the possible. New York: Bantam. 1963. 235 p.

Clarke, I.F. The pattern of prediction 1763-1973: the first forecast of the future (anonymous author of THE REIGN OF GEORGE VI, 1900-1925). FUTURES. Vol. 1, no. 4. June 1969. pp. 325-330.

_____. The pattern of prediction 1763-1973: forecasts of future wars, 1871-1914. FUTURES. Vol. 1, no. 6. December 1969. pp. 553-557.

Cohn, Victor. 1999, OUR HOPEFUL FUTURE. Indianapolis and New York: Bobbs-Merrill Co. 1956.

Cole, Dandridge M. BEYOND TOMORROW, the next 50 years in space. Amherst, Wisc.: Amherst Press. 1965.

de Condorcet, Antoine-Nicolas (M.J. de Caritat). SKETCH FOR A HISTORICAL PICTURE OF THE PROGRESS OF THE HUMAN MIND (Esquisse d'un tableau historiques des progres de l'esprit humain) (J. Barrachlogh, translator). London: Weidenfeld and Nicolson. 1795: 1955. 202 p.

DAEDALUS. Special issue. Toward the Year 2000: work in progress. Vol. 96, no. 3. Summer 1967. 1002 p.

Darling, F. Fraser and John Milton (eds.). FUTURE ENVIRONMENTS OF NORTH AMERICA. Garden City, N.J.: Natural History Press. 1966. 767 p.

Darwin, Sir Charles. THE NEXT MILLION YEARS. London: Rupert Hart-Davis. 1952. 210 p.

Diebold, John. BEYOND AUTOMATION. Managerial problems of an exploding technology. New York: McGraw-Hill. 1964. 220 pp.

_____. BUSINESS DECISIONS AND TECHNOLOGICAL CHANGE. New York: Praeger. 1970. 268 pp.

_____. MAN AND THE COMPUTER: Technology as an agent of social change. New York: Praeger. 1969. 157 p.

Douglas Aircraft Co. Preliminary design of an experimental world-circling spaceship. Santa Monica: Douglas Aircraft Co., Engineering Division. SM-11827. 2 May 1946. 236+ p.

Drucker, Peter F. THE AGE OF DISCONTINUITY. Guidelines to our changing society. New York: Harper & Row. 1968. 402 p.

_____. AMERICA'S NEXT TWENTY YEARS. New York: Harper & Bros. 1955. 114 p.

_____. LANDMARKS OF TOMORROW. New York: Harper & Bros. 1957. 270 p.

Dubos, Rene. Future-oriented science. In PERSPECTIVES OF PLANNING. (E. Jantsch, ed.). 1969. pp. 159-178.

Dustan, Maryjane and Patricia W. Garlan. WORLDS IN THE MAKING. Probes for students of the future. Englewood Cliffs, N.J.: Prentice-Hall. 1970. 370 pp.

Edson, Lee. A Gabor names Dennis seeks Utopia. THINK. Vol. 36, no. 1. January/February 1970. pp. 23-27.

Ellul, Jacques. THE TECHNOLOGICAL SOCIETY. New York: Alfred A. Knopf, Inc. 1964. 449 p.

Ewald, William R., Jr. (ed.). ENVIRONMENT FOR MAN. The next fifty years. Bloomington: Indiana University Press. 1967. 308 p.

_____. ENVIRONMENT AND CHANGE. The next fifty years. Bloomington: Indiana University Press. 1968. 397 p.

_____. ENVIRONMENT AND POLICY. The next fifty years. Bloomington: Indiana University Press. 1968. 459 p.

Fabun, Don. THE DYNAMICS OF CHANGE. Englewood Cliffs, N.J.: Prentice-Hall. 1967. 190 p.

Ferkiss, Victor C. TECHNOLOGICAL MAN: the myth and the reality. New York: Braziller. 1969. 336 p.

Forbes, R.J. THE CONQUEST OF NATURE. Technology and its consequences. New York: New American Library. 1968. 142 pp.

Foreign Policy Association (eds.). TOWARD THE YEAR 2018. New York: Cowles Education Corp. 1968. 177 p.

Frye, William E. IMPACT OF SPACE EXPLORATION ON SOCIETY. Tarzana, California: American Astronautical Society. Vol. 8. Science and Technology Series. 1966. 370 p.

Fuller, R. Buckminster. EDUCATION AUTOMATION. Freeing the scholar to return to his studies. Carbondale: Southern Illinois University Press. 1962. 88 p.

_____. IDEAS AND INTEGRITIES. A spontaneous autobiographical disclosure. New York: Collier. 1963. 318 p.

_____. NINE CHAINS TO THE MOON. Carbondale: Southern Illinois University Press. 1938. 375 p.

_____. NO MORE SECONDHAND GOD. And other writings. Carbondale: Southern Illinois University Press. 1963 (1953). 163 p.

Fuller, R. Buckminster. Notes on the future. The prospect for humanity. SATURDAY REVIEW. 3-part series: 29 August 1964; 19 September 1964; 3 October 1964.

_____. OPERATING MANUAL FOR SPACESHIP EARTH. Carbondale: Southern Illinois University Press. 1969. 143 p.

_____. UNTITLED EPIC POEM ON THE HISTORY OF INDUSTRIALIZATION. Highlands, N.C.: The Nantahala Foundation. 1962. 227 p.

_____. UTOPIA OR OBLIVION: the prospects for humanity. New York: Bantam. 1969. 363 p.

_____. Vision 65: Summary lecture. AMERICAN SCHOLAR. Vol. 35, no. 2. October 1965. pp. 206-218.

_____. The world game. EKISTICS. Vol. 28, no. 167. October 1969. pp. 286-291.

Furnas, C.C. AMERICA'S TOMORROW. New York: Funk & Wagnalls Co. 1932.

_____. THE NEXT HUNDRED YEARS. The unfinished business of science. New York: Reynal & Hitchcock. 1936. 434 p.

_____. The next 100 years--three decades later. A paper presented to the Thursday Club. 13 April 1967. 11 p. (mimeo).

Gabor, Dennis. INNOVATIONS. Scientific, technological and social. London: Oxford University Press. 1970. 113 p.

_____. INVENTING THE FUTURE. Middlesex, England: Pelican. 1964. 199 p.

Galtung, Johan. On the future of human society. FUTURES. Vol. 2, no. 2. June 1970. pp. 132-142.

Gardner, John. A view from the 23rd Century. How 20th Century man let his institutions go to pieces. THE FUTURIST. Vol. 2, no. 6. December 1968. pp. 126-127.

Gardner, John W. SELF-RENEWAL. New York: Harper & Row. 1964. 127 p.

General Electric Co. staff. Our future business environment. New York: General Electric. April 1968. 8 p.

Gibbs, Sir Philip. THE DAY AFTER TOMORROW, WHAT IS GOING TO HAPPEN TO THE WORLD? New York: Doubleday, Doran & Co. 1928.

Ginzberg, Eli (ed.). TECHNOLOGY AND SOCIAL CHANGE. Columbia University Seminar on Technology and Social Change. New York: Columbia University Press. 1964. 155 p.

Goldsen, Joseph M. Thinking about future social development. Santa Monica: RAND. September 1967.

Gordon, Theodore J. THE FUTURE. New York: St. Martin's Press. 1965. 184 p.

_____. and Robert H. Ament. Forecasts of some technological and scientific developments and their societal consequences. Middletown, Conn.: Institute for the Future. R-6. September 1969. 103 pp.

_____. and Dennis L. Little. Some trends likely to affect American society in the next several decades. Middletown, Conn.: Institute for the Future. WP-16. April 1971. 48 p.

Greenberger, Martin (ed.). COMPUTERS AND THE WORLD OF THE FUTURE. Cambridge: MIT Press. 1962.

Gross, Bertram M. Friendly fascism: a model for America. SOCIAL POLICY. Vol. 1, no. 4. November/December 1970. pp. 44-52.

_____. A GREAT SOCIETY? New York: Basic Books. 1966. 362 p.

_____. Urban mapping for 1976 and 2000. Detroit: Wayne State University, Center for Urban Studies. August 1969. 27 p. (mimeo).

Guinn, James E. MAN AND THE FUTURE. Lawrence: University of Kansas Press. 1968. 305 p.

Harrington, Michael. THE ACCIDENTAL CENTURY. Baltimore: Pelican. 1966. 322 pp.

Harrison, Annette. Bibliography on automation and technological change and studies of the future. Santa Monica: RAND. P-3365. May 1966.

Hart, Hornell. Changing social attitudes and interests. In RECENT SOCIAL TRENDS IN THE UNITED STATES. 1933. pp. 382-442.

Hatt, Harold E. CYBERNETICS AND THE IMAGE OF MAN. A study of freedom and responsibility in man and machine. New York: Abington Press. 1968. 304 p.

Hayden, Spencer J. En route to the Year 2000. MANAGEMENT SCIENCE. November 1967. pp. 17-24.

Haydon, Brownlee. The Year 2000. Santa Monica: RAND. P-3571. March 1967. 35 p.

Heilbroner, Robert L. Do machines make history? TECHNOLOGY AND CULTURE. July 1967. pp. 335-345.

_____. THE FUTURE AS HISTORY. The historic currents of our time and the direction in which they are taking America. New York: Grove Press. 1959. 217 p.

Heller, Agnes. On the future of relations between the sexes. INTERNATIONAL SOCIAL SCIENCES JOURNAL. Vol. 21, no. 4. 1969. pp. 535-544.

Helmer, Olaf and Raul de Brigard. Some potential societal developments: 1970-2000. Middletown, Conn.: IFF. (to be published).

Honan, William. They live in the Year 2000. NEW YORK TIMES MAGAZINE. April 1967.

Hoyle, Fred. Forecasting the future? A noted astronomer takes issue with some of the "dire prognostications" of Sir Charles Darwin. In FRONTIERS IN SCIENCE (Edward Hutchings, Jr., ed.). 1960. pp. 117-121.

Huxley, Aldous. BRAVE NEW WORLD REVISITED. New York: Harper & Row. 1958.

_____. TOMORROW AND TOMORROW AND TOMORROW. New York: Harper & Bros. 1956.

Jarrett, Henry (ed.). ENVIRONMENTAL QUALITY IN A GROWING ECONOMY. Baltimore: Johns Hopkins Press. 1966. 173 pp.

de Jouvenel, Bertrand. On attending to the future. In ENVIRONMENT AND CHANGE (W.R. Ewald, Jr. ed.). 1968. pp. 21-29.

_____. Futuribles. Santa Monica: RAND. P-3045. January 1965.

_____. The political consequences of the rise of science. BULLETIN OF THE ATOMIC SCIENTISTS. December 1963. pp. 2-8.

_____. Political science and prevision. AMERICAN POLITICAL SCIENCE REVIEW. Vol. 59. March 1965. pp. 29-38.

_____. Technology as a means. In VALUES AND THE FUTURE (K. Baier and N. Rescher, eds.). 1969. pp. 217-232.

_____. Utopia for practical purposes. DAEDALUS. Spring 1965. pp. 437-453.

Jungk, Robert. About Mankind 2000. In PLANNING FOR DIVERSITY AND CHOICE (S. Anderson, ed.). 1968. pp. 79-98.

_____. Human futures. FUTURES. Vol. 1, no. 1. September 1968. pp. 34-39.

_____, and Johan Galtung (eds.). MANKIND 2000. Oslo: University of Oslo Press. 1968. 368 p.

Kahn, Herman. Alternative world futures. Croton-on-Hudson, N.Y.: Hudson Institute. Paper no. HI-34-B IV. April 1964.

_____. The alternative world futures approach. In NEW APPROACHES TO INTERNATIONAL RELATIONS (M. Kaplan, ed.). 1968. pp. 83-136.

_____. The "emergent United States"...post-industrial society. In the MANAGEMENT OF INFORMATION AND KNOWLEDGE (U.S. House of Representatives). 1970. pp. 17-40.

_____. ON ESCALATION: metaphors and scenarios. Baltimore: Penguin. 1965. 308 p.

_____. ON THERMONUCLEAR WAR. New York: Free Press. 1960; 1969. 688 p.

_____. THINKING ABOUT THE UNTHINKABLE. New York: Avon. 1962. 290 p.

_____. Uncertain road to the 21st Century. THINK. Vol. 33, no. 1. January/February 1967. pp. 3-12.

_____, and Anthony J. Wiener. Technological innovation and the future of strategic warfare. ASTRONAUTICS AND AERONAUTICS. December 1967. pp. 28-48.

_____. THE YEAR 2000. A framework for speculation on the next thirty-three years. New York: MacMillan. 1967. 431 p.

Kettle, John. The future is not inevitable. BELL TELEPHONE MAGAZINE. Vol. 49, no. 1. January/February 1970. pp. 18-23.

King-Hele, Desmond. THE END OF THE TWENTIETH CENTURY? New York: St. Martin's Press. 1970. 206 pp.

Konecci, Eugene B., Maxwell W. Hunter, and Robert F. Traff (eds.). SPACE AGE IN FISCAL YEAR 2000. Tarzana, California: American Astronautical Society. Science and Technology Series. Vol. 10. 1967. 445 p.

Kopkind, Andrew. The future-planners. THE AMERICAN PSYCHOLOGIST. November 1967. pp. 1036-1041.

Kostelanetz, Richard. One-man think tank (Herman Kahn). NEW YORK TIMES MAGAZINE. December 1, 1968.

_____. (ed.). SOCIAL SPECULATIONS. Visions for our time. New York: William Morrow. 1971. 306 p.

Landers, Richard R. MAN'S PLACE IN THE DYBOSPHERE. Englewood Cliffs, N.J.: Prentice-Hall. 1966. 266 p.

Landsberg, Hans H., Leonard L. Fischman, and Joseph L. Fisher. RESOURCES IN AMERICA'S FUTURE. Patterns of requirements and availabilities. 1960-2000. Baltimore: Johns Hopkins Press. 1963. 1017 p.

Lapp, Ralph E. THE NEW PRIESTHOOD: the scientific elite and the uses of power. New York: Harper & Row. 1965. 244 p.

Lichtheim, George. Ideas of the future. PARTISAN REVIEW. Vol. 3, no. 3. Summer 1966. pp. 396-410, 467-472.

LOOK. Special issue. The 70's. Vol. 34, no. 1. 13 January 1970. pp. 17-86.

Low, A.M. WHAT'S THE WORLD COMING TO? Science looks at the future. New York: Lippincott. 1951. 214 p.

_____. THE FUTURE. London: George Routledge & Sons. 1925. 203 p.

Lundberg, Ferdinand. THE COMING WORLD TRANSFORMATION. Garden City, N.Y.: Doubleday. 1963. 395 p.

Marien, M. Notes on the education complex as an emerging macrosystem. In GLOBAL SYSTEMS DYNAMICS (E.O. Attinger, ed.). 1970. pp. 225-244.

McHale, John. THE ECOLOGICAL CONTEXT. New York: Braziller. 1970. 188 pp.

_____. THE FUTURE OF THE FUTURE. New York: Braziller. 1969. 322 p.

_____. Future city(s): notes on a typology. EKISTICS. Vol. 28, no. 165. August 1969. pp. 86-90.

_____. Future research: some integrative and communicative aspects. In MANKIND 2000 (R. Jungk and J. Galtung, eds.). 1969. pp. 256-265.

_____. Global ecology--toward the planetary society. AMERICAN BEHAVIORAL SCIENTIST. July-August 1968.

_____. Science, technology and change. THE ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. Social Goals and Indicators for American Society. Vol. 11. September 1967. pp. 120-140.

McHale, John. Toward the future. DESIGN QUARTERLY 72. Minneapolis: Walker Art Center. 1968. 28 p.

_____. World dwelling. YALE PERSPECTA 11. 1967. pp. 122-129.

_____. World energy resources in the future. FUTURE. Vol. 1, no. 1. September 1968. pp. 4-13.

McLuhan, Marshall. UNDERSTANDING MEDIA: the extensions of man. New York: Signet. 1964. 318 p.

_____, and Quentin Fiore. THE MEDIUM IS THE MESSAGE. An inventory of effects. New York: Bantam. 1967. 168 p.

_____. WAR AND PEACE IN THE GLOBAL VILLAGE. New York: Bantam. 1968. 192 p.

McLuhan, Marshall and G.B. Leonard. The future of sex. LOOK. 25 July 1967.

Meier, Richard L. SCIENCE AND ECONOMIC DEVELOPMENT. New patterns of living. Cambridge: MIT Press. 1956; 1966. 273 p.

_____. Technological resources and urbanism--the long view. In FUTURE ENVIRONMENTS OF NORTH AMERICA (F. Fraser Darling and J. Milton, eds.). 1966. pp. 277-288.

Mercier, Louis-Sebastian. MEMOIRE OF THE YEAR 2500 (L'An 2440) (W. Hooper, translator). London: G. Robinson. 1772. 2 vols. 448 p.

Mesthene, E.G. How technology will shape the future. SCIENCE. Vol. 161, no. 3837. 12 July 1968. pp. 135-143.

_____. How technology will shape the future. In PURPOSIVE SYSTEMS (H. von Foerster, et al., eds.). 1968. pp. 67-80.

_____. On understanding change. TECHNOLOGY AND CULTURE. Spring 1965.

_____. TECHNOLOGICAL CHANGE. Its impact on man and society. New York: New American Library. 1970. 127 pp.

Michael, Donald N. Cybernation: the silent conquest. Santa Barbara, California: Center for the Study of Democratic Institutions. 1962. 48 p.

_____. THE NEXT GENERATION. The prospects ahead for the youth of today and tomorrow. New York: Random House. 1965. 218 p.

Michael, Donald N., et al. Proposed studies on the implications of peaceful space activities for human affairs. A report prepared for the Committee on Long-range Studies of the National Aeronautics and Space Administration. Washington: The Brookings Institution. December 1960. 2 vols. 248 p.

Michael, Donald N. Social engineering and the future environment. AMERICAN PSYCHOLOGIST. November 1967. pp. 888-892.

_____. Some speculations on the social impact of technology. In TECHNOLOGICAL INNOVATION AND SOCIETY (Dean Morse and Aaron W. Warner, eds.). 1966. pp. 118-154.

Mondale, Walter F. (Senator). Some thoughts on "stumbling into the future." AMERICAN PSYCHOLOGIST. November 1967. pp. 970-973.

Morphet, Edgar L. and Charles O. Ryan (eds.). DESIGNING EDUCATION FOR THE FUTURE, series. New York: Citation Press.
No. 1: Prospective changes in society by 1980. 268 p.
No. 2: Implications for education of prospective changes in society. 323 p.
No. 3: Planning and effecting needed changes in education. 317 p.

Morse, Dean and Aaron W. Warner (eds.). TECHNOLOGICAL INNOVATION AND SOCIETY. New York: Columbia University Press. 1966. 214 p.

Muller, Herbert J. THE CHILDREN OF FRANKENSTEIN. A primer on modern technology and human values. Bloomington: Indiana University Press. 1970. 431 pp.

National Commission on Technology, Automation, and Economic Progress. TECHNOLOGY AND THE AMERICAN ECONOMY. Washington: GPO. February 1966.
Vol. 1: The outlook for technological change.
Vol. 2: The employment impact of technological change.
Vol. 3: Adjusting to change.
Vol. 4: Educational implications of technological change.
Vol. 5: Technology and the American economy.
Vol. 6: Statements relating to the impact of technological change.

National Industrial Conference Board and Opinion Research Corporation. PERSPECTIVES FOR THE '70's and '80's. Tomorrow's problems confronting today's management. New York: NICB. 1970. 124 pp. $3.50.

National Resources Committee. U.S. House of Representatives. TECHNOLOGICAL TRENDS AND NATIONAL POLICY including the social implications of new inventions. Report of the Subcommittee on Technology. June 1937. House document no. 360. (75th Congress, 1st session). Washington: GPO. 388 p.

Neiswender, R. (translator). The exploration of the future. Reprinted from REALITIES, no. 245, June 1966, pp. 50-58. Santa Monica: RAND. P-3540. February 1967. 30 p.

NEW YORK TIMES MAGAZINE. Special issue. The future. Section 6, part 2. 19 April 1964. pp. 86-118.

Page, J.K. Possible developments in the urban environment. FUTURES. Vol. 2, no. 3. September 1970. pp. 215-221.

Pauwels, Louis and Jacques Bergier. THE MORNING OF THE MAGICIANS. New York: Stein and Day. 1960; 1964. 300 p.

Peccei, Aurelio. Problems of world future. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 229-234.

Peterson, William H. The future and the futurists. HARVARD BUSINESS REVIEW. November/December 1967. pp. 168-186.

Pierce, John R. Technology, the individual and the future. Murray Hill, N.J.: Bell Telephone Laboratories. 16 p. (mimeo).

Platt, John. Social inventions. EKISTICS. Vol. 28, no. 167. October 1969. pp. 292-295.

_____. THE STEP TO MAN. New York: Wiley. 1967. 216 p.

_____. What we must do: a mobilization of scientists as in wartime may be the only way to solve our crisis problems. EKISTICS. Vol. 28, no. 169. December 1969. pp. 447-451.

Polak, Fred L. THE IMAGE OF THE FUTURE. Enlightening the past, orienting the present, forecasting the future (European aspects). Volume One: The promised land, source of living culture; Volume Two: Iconoclasm of the images of the future, demolition of culture. New York: Oceana Publications. 1961. 832 p.

President's Research Committee on Social Trends. RECENT SOCIAL TRENDS IN THE UNITED STATES. York, Penna.: Maple Press. 1933. 2 vols. 1568 p.

PROGRESSIVE ARCHITECTURE. Special issue. Toward the third millenium. December 1966. pp. 91-150.

Rescher, Nicholas. The future as an object of research. Santa Monica: RAND. P-3593. April 1967. 12 p.

Sarnoff, David. By the end of the twentieth century. FORTUNE. May 1964. pp. 116-119.

SATURDAY REVIEW. Special issue. Tomorrow's leaders view the problems of the next 25 years. 13 January 1968. pp. 31-72.

SCIENCE JOURNAL. Special issue. Forecasting the future. October 1967. pp. 40-125.

SCIENTIFIC AMERICAN. Special issue. The future as suggested by the development of the past 75 years. October 1920.

Shapley, Harlow. THE VIEW FROM A DISTANT STAR. Man's future in the Universe. New York: Basic Books. 1963. 212 p.

Still, Henry. MAN: the next 30 years. New York: Hawthorn. 1969. 206 p.

Syracuse University. Science and technology in the 1985 era. Washington: CFSTI. Document no. AD 613 525. March 1965.

_____. Science and technology in the 1985 era: appendix committee reports. Washington: CFSTI. Document no. AD 613 526. March 1965.

_____. The United States and the world in the 1985 era. Washington: CFSTI. Document no. AD 613 527. March 1965.

_____. The United States and the world in the 1985 era: appendixes 1 & 2. Washington: CFSTI. March 1965.

Teilhard de Chardin, Pierre. THE PHENOMENON OF MAN. New York: Harper. 1955; 1959. 320 p.

Theobald, Robert. AN ALTERNATIVE FUTURE FOR AMERICA. Chicago: Swallow Press. 1968. 186 p.

_____. THE CHALLENGE OF ABUNDANCE. New York: Mentor. 1961. 192 p.

Thompson, Sir George. THE FORESEEABLE FUTURE. New York: Viking. 1955. 166 p.

Thring, M.W. Machines for a creative society. FUTURES. Vol. 2, no. 1. March 1970. pp. 45-53.

Toffler, Alvin. Coping with future shock. PLAYBOY. Vol. 17, no. 3. March 1970. pp. 89+.

_____. The future as a way of life. HORIZON, 7. Summer 1965. pp. 108-115.

_____. FUTURE SHOCK. New York: Random House. 1970. 505 pp.

Torrey, Volta (ed.). Outlook on man's future. TECHNOLOGY REVIEW. Vol. 68, no. 1. November 1965. pp. 19-27+.

United Nations. SCIENCE AND TECHNOLOGY FOR DEVELOPMENT. Report on the United Nations Conference on the Application of Science and Technology for the benefit of the Less Developed Areas. New York: United Nations. 1963. 8 vols.
Vol. 1: World of Opportunity.
Vol. 2: Natural resources.
Vol. 3: Agriculture.
Vol. 4: Industry.
Vol. 5: People and living--population, health, nutrition, rural development, urbanization.
Vol. 6: Education and training.
Vol. 7: Science and planning.
Vol. 8: Plenary proceedings, list of papers and idex.

Vassiliev, M. and S. Gouschev (eds.). LIFE IN THE TWENTY-FIRST CENTURY. Middlesex, England: Pelican. 1961. 222 p.

Volkov, Heinrich N. Society in the technical age. DIOGENES. Fall 1966. pp. 16-27.

Von Karman, Theo, et al. Toward new horizons. USAF Scientific Advisory Group. 7 November 1944.

Von Neumann, John. Can we survive technology? FORTUNE. Vol. 51. June 1955.

Wall Street Journal staff (eds.). HERE COMES TOMORROW! Living and working in the Year 2000. Princeton: Dow Jones Books. 1967. 196 p.

Wallia, C.S. (ed.). TOWARD CENTURY 21. New York: Basic Books. 1970. 319 p.

Walton, Clarence C. TODAYS CHANGING SOCIETY. A challenge to individual identity. New York: Institute of Life Insurance. 1967. 136 p.

Ward, Barbara. SPACESHIP EARTH. New York: Columbia University Press. 1966. 152 pp.

Warner, Aaron W., Dean Morse, and Thomas E. Cooney (eds.) THE ENVIRONMENT OF CHANGE. New York: Columbia University Press. 1969. 186 p.

Warner, Aaron W., Dean Morse, and Alfred S. Eichner (eds.). THE IMPACT OF SCIENCE ON TECHNOLOGY. New York: Columbia University Press. 1965. 221 p.

Warshofsky, Fred. The 21st CENTURY. The new age of exploration. New York: Viking. 1969. 177 p.

Ways, Max. The road to 1977. FORTUNE. January 1967. pp. 93+.

Wellesley-Wesley, James. Mankind 2000-the role of the individual. FUTURES. Vol. 2, no. 3. September 1970. pp. 202.

Wells, H.G. ANTICIPATIONS OF THE REACTION OF MECHANICAL AND SCIENTIFIC PROGRESS UPON HUMAN LIFE AND THOUGHT. London: Chapman & Hall. 1902. 318 p.

_____. The discovery of the future. ANNUAL REPORT OF THE SMITHSONIAN INSTITUTION. 1902. Washington: GPO. 1903. pp. 375-392.

Winthrop, Henry. Social costs and studies of the future. FUTURES. Vol. 1, no. 6. December 1969. pp. 488-499.

_____. VENTURES IN SOCIAL INTERPRETATION. New York: Appleton-Crofts-Century. 1968. 551 pp.

Wolstenholme, Gordon (ed.). MAN AND HIS FUTURE. Boston: Little, Brown & Co. 1963. 410 pp.

WORLD RESOURCES INVENTORY. World Design Science Decade, 1965-1975. Carbondale, Ill.: Southern Illinois University. Set of 6 documents.

Phase 1, Doc. 1: Inventory of world resources, human trends, and needs. R. Buckminster Fuller and J. McHale. 1963.

Phase 1, Doc. 2: The design initiative. R. Buckminster Fuller. 1964.

Phase 1, Doc. 3: Comprehensive thinking. R. Buckminster Fuller. 1965.

Phase 1, Doc. 4: The ten year program. John McHale. 1965.

Phase 11, Doc. 5: Comprehensive design strategy. R. Buckminster Fuller. 1967.

Phase 11, Doc. 6: The ecological context: energy and materials. John McHale. 1967.

Wren-Lewis, John. Faith in the technological future. FUTURES. Vol. 2, no. 3. September 1970. pp. 258-262.

POLICY-MAKING

Abt, Clark C. Public participation in future forecasting and planning. Washington: World Future Society. July 1967. 12 pp. (mimeo).

Archibald, K.A. Three views of the expert's role in policy-making: systems analysis, incrementalism, and the clinical approach. POLICY SCIENCES. Vol. 1, no. 1. Spring 1970. pp. 73-86.

Bauer, Raymond A. An introduction. In THE STUDY OF POLICY FORMATION (R.A. Bauer & K. Gergen, eds.). 1968. pp. 1-26.

_____. Social psychology and the study of policy formation. AMERICAN PSYCHOLOGIST. Vol. 21, no. 10. October 1966. pp. 933-942.

_____. and Kenneth J. Gergen (eds.). THE STUDY OF POLICY FORMATION. New York: The Free Press. 1968. 392 pp.

Biderman, Albert D. Information, intelligence, enlightened public policy: functions and organization of societal feedback. POLICY SCIENCES. Vol. 1, no. 2. Summer 1970. pp. 217-230.

Bower, Joseph L. Descriptive decision theory from the "administrative" viewpoint. In THE STUDY OF POLICY FORMATION (R.A. Bauer & K. Gergen, eds.). 1968. pp. 103-148.

Braybrooke, David and Charles E. Lindblom. A STRATEGY OF DECISION. Policy evaluation as a social process. New York: Free Press of Glencoe. 1963. 268 pp.

Costello, Timothy W. Psychological aspects: the soft side of policy formation. POLICY SCIENCES. Vol. 1, no. 2. Summer 1970. pp. 161-168.

Dror, Yehezkel. Accelerated development and policy-making improvement. Santa Monica: RAND. P-4021. March 1969. 10 pp.

_____. Alternative domestic politics futures (ADPF): research needs and research design. Santa Monica: RAND. P-4306. February 1970. 17 pp.

_____. Alternative domestic political futures: research needs and research design. FUTURES. Vol. 2, no. 4. December 1970. pp. 302-311.

_____. Analytical approaches and applied social sciences. Santa Monica: RAND. P-4248. November 1969. 26 pp.

Dror, Yehezkel. Futures in government. Santa Monica: RAND. P-3909. August 1968. 14 pp.

_____. Muddling through--science or inertia. PUBLIC ADMINISTRATION REVIEW. Vol. 24, no. 3. September 1964. pp. 153-157.

_____. Planning in the United States--some reactions of a foreign observer. PUBLIC ADMINISTRATION REVIEW. Vol. 31, no. 3. May/June 1971. pp. 399-403.

_____. Policy analysis: a theoretic framework and some basic concepts. Santa Monica: RAND. P-4156. July 1969. 24 pp.

_____. Policy analysts: a new professional role in government. PUBLIC ADMINISTRATION REVIEW. September 1967.

_____. A policy sciences view of future studies: alternative futures and present action. Santa Monica: RAND. P-4305. February 1970. 29 pp.

_____. A policy sciences view of futures studies: alternative futures and present action. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE. Vol. 2, no. 1. 1970. pp. 3-16.

_____. The prediction of political feasibility. FUTURES. Vol. 1, no. 4. June 1969. pp. 282-288.

_____. Prolegomena to the policy sciences. POLICY SCIENCES. Vol. 1, no. 1. Spring 1970. pp. 135-150.

_____. PUBLIC POLICY-MAKING REEXAMINED. San Francisco: Chandler. 1968. 370 pp.

_____. Some normative implications of a systems view of policy-making. Santa Monica: RAND. P-3991-1. February 1969. 22 pp.

_____. Some requisites of organizations' better taking into account the future. In MANKIND 2000 (R. Jungk and J. Galtung, eds.). 1969. pp. 286-290.

_____. "Specialists vs. generalists"--a miss-question. Santa Monica: RAND. P-3997. December 1968. 10 pp.

_____. Strategies for administrative reform. Santa Monica: RAND. P-4382. June 1970. 25 pp.

_____. Systems analysis for development decisions: applicability, feasibility, effectiveness and efficiency. Santa Monica: RAND. P-4159. August 1969. 27 pp.

Dror, Yehezkel. Technological forecasting and policy-making reform. TECHNOLOGICAL FORECASTING. Vol. 1, no. 2. Fall 1969. pp. 109-111.

_____. Universities and the policy sciences. POLICY SCIENCES. Vol. 1, no. 4. December 1970. pp. 401-402.

Feinberg, Gerald. THE PROMETHEUS PROJECT: mankind's search for long-range goals. New York: Doubleday. 1969. 264 pp.

Gergen, Kenneth J. Assessing the leverage points in the process of policy formation. In THE STUDY OF POLICY FORMATION (R.A. Bauer and K. Gergen, eds.). 1968. pp. 205-238.

Gordon, T.J., S. Enzer and R. Rochberg. An experiment in simulation gaming for social policy studies. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 241-262.

Haveman, Robert H. and Julius Margolis. PUBLIC EXPENDITURES AND POLICY ANALYSIS. Chicago: Markham. 1970. 596 p.

Lasswell, Harold D. The emerging conception of the policy sciences. POLICY SCIENCES. Vol. 1, no. 1. Spring 1970. pp. 3-14.

_____. The policy orientation. In THE POLICY SCIENCES (H.D. Lasswell and D. Lerner, eds.). 1951. pp. 3-15.

_____. and Daniel Lerner (eds.). THE POLICY SCIENCES. Stanford, California: Stanford University Press. 1951. 344 pp.

Lindblom, Charles E. THE INTELLIGENCE OF DEMOCRACY. Decision Making through mutual adjustment. New York: The Free Press. 1965. 352 pp.

_____. Policy analysis. AMERICAN ECONOMIC REVIEW. Vol. 48, no. 3. June 1958. pp. 298-312.

_____. THE POLICY-MAKING PROCESS. Englewood Cliffs, N.J.: Prentice-Hall. 1968. 122 pp.

_____. The science of 'muddling through'. PUBLIC ADMINISTRATION REVIEW. Vol. 19, no. 2. Spring 1959. pp. 79-88.

Meyerson, Martin. Urban policy: reforming reform. In DAEDALUS. Fall 1968. pp. 1410-1430.

Michael, Donald N. Urban policy in the rationalized society. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 31, no. 4. November 1965. pp. 283-288.

Millikan, Max. Inquiry and policy: the relating of knowledge to action. In THE HUMAN MEANING OF THE SOCIAL SCIENCES (D. Lerner, ed.). 1959. pp. 158-182.

Moynihan, Daniel P. (ed.). TOWARD A NATIONAL URBAN POLICY. New York: Basic Books. 1970. 348 pp.

Quade, E.S. The systems approach and public policy. Santa Monica: RAND. March 1969. P-4053. 29 pp.

_____. Why policy sciences? POLICY SCIENCES. Vol. 1, no. 1. Spring 1970. pp. 1-2.

_____. and W.I. Boucher. (eds.). SYSTEMS ANALYSIS AND POLICY PLANNING: applications in defense. New York: Elsevier. 1968. 453 pp.

Schneider, Lewis M. Urban mass transportation: a survey of the decision-making process. In THE STUDY OF POLICY FORMATION (R.A. Bauer and K. Gergen, eds.). 1968. pp. 239-280.

Schoettle, Enid C.B. The state of the art in policy studies. In THE STUDY OF POLICY FORMATION (R.A. Bauer and K. Gergen, eds.). 1968. pp. 149-181.

Schooler, Dean, Jr. Political arenas, life styles, and the impact of technologies on policy-making. POLICY SCIENCES. Vol. 1, no. 3. Fall 1970. pp. 275-288.

Sharkansky, Ira (ed.). POLICY ANALYSIS IN POLITICAL SCIENCE. Chicago: Markham. 1970. 476 p.

Taviss, Irene. Futurology and the problem of values. INTERNATIONAL SOCIAL SCIENCE JOURNAL. Vol. 21, no. 4. 1969. pp. 574-584.

Turoff, Murray. The design of a policy Delphi. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE. Vol. 2, no. 2. 1970. pp. 149-172.

Umpleby, Stuart. Citizen sampling simulations: a method for involving the public in social planning. POLICY SCIENCES. Vol. 1, no. 3. pp. 361-376.

Vickers, Sir Geoffrey. THE ART OF JUDGMENT: a study of policy-making. New York: Basic Books. 1965. 242 pp.

_____. The psychology of policy-making and social change. THE BRITISH JOURNAL OF PSYCHIATRY. Vol. 110, no. 467. July 1964. pp. 465-477.

_____. Is adaptability enough? BEHAVIORAL SCIENCE. No. 4. 1959. pp. 219-234.

Vickers, Sir Geoffrey. TOWARDS A SOCIOLOGY OF MANAGEMENT. New York: Basic Books. 1967. 206 pp.

_____. VALUE SYSTEMS AND SOCIAL PROCESSES. New York: Basic Books. 1968. 217 pp.

_____. The uses of speculation. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 34, no. 2. March 1968. pp. 2-10.

Webber, Melvin M. The prospects for policies planning. In THE URBAN CONDITION (L. Duhl, ed.). 1963. pp. 319-330.

Wildavsky, Aaron. THE POLITICS OF THE BUDGETARY PROCESS. Boston: Little, Brown and Co. 1964. 216 p.

Wilensky, Harold. ORGANIZATION INTELLIGENCE. Knowledge and policy in government and industry. New York: Basic Books. 1967. 226 p.

PLANNING

Ackoff, Russell. A concept of corporate planning. LONG RANGE PLANNING. Vol. 3, no. 1. September 1970. pp. 2-8.

Addison-Wesley Series on Organization Development.
1) Beckhard, Richard. ORGANIZATION DEVELOPMENT: Strategies and models. 199 p.
2) Bennis, Warren G. ORGANIZATION DEVELOPMENT: Its nature, origins and prospects.
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4) Lawrence, Paul R. & Jay W. Lorsch. DEVELOPING ORGANIZATIONS: Diagnosis and action. 101 p.
5) Schein, Edgar H. PROCESS CONSULTATION: its role in organization development. 147 p.
6) Walton, Richard E. INTERPERSONAL PEACEMAKING: confrontations and third party consulation. 151 p.

Adelson, Marvin (ed.). Planning education for the future. AMERICAN BEHAVIORAL SCIENTISTS. Vol. 10, no. 7. March 1967. pp. 1-31.

_____. Toward a future for planning. Santa Monica: SDC. SP-2022. June 1966. 17 p.

Alonso, William. Aspects of regional planning and theory in the United States. Berkeley: Center for Planning and Development Research. WP-87. October 1968. 27 pp.

_____. Beyond the inter-disciplinary approach to planning. UC Berkeley: Center for Planning and Development Research. WP-90. November 1968. 20 pp.

_____. Cities and city planners. In TAMING MEGALOPOLIS (H.W. Eldredge, ed.). 1967. pp. 580-595.

Altshuler, Alan. THE CITY PLANNING PROCESS: a political analysis. Ithaca, N.Y.: Cornell University 1965. 446 pp.

_____. The goals of comprehensive planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 31, no. 3. August 1965. pp. 186-194.

Ansoff, H. Igor (ed.). BUSINESS STRATEGY. Selected readings. Baltimore: Penguin Books. 1970. 388 p.

_____. The innovative firm. LONG RANGE PLANNING. Vol. 1, no. 2. December 1968. pp. 26-27.

Argenti, John. Defining corporate objectives. LONG RANGE PLANNING. Vol. 1, no. 3. March 1969. pp. 24-27.

Argyris, Chris. ORGANIZATION AND INNOVATION. Homewood, Ill.: R.D. Irwin and the Dorsey Press. 1965.

_____. Understanding organizational change. GENERAL SYSTEMS, Yearbook of the Society for General Systems Research. 1959. Vol. 4. pp. 123-136.

Ascman, Frederick T. The "policy plan" in the planning program. PLANNING 1963. Chicago: American Society of Planning Officials. 1963. pp. 105-111.

Attinger, E.O. (ed.). GLOBAL SYSTEMS DYNAMICS. New York: Wiley-Interscience. 1970. 353 p.

Baier, Kurt. What is value? An analysis of the concept. In VALUES AND THE FUTURE (K. Baier and N. Rescher, eds.). 1969. pp. 33-67.

_____. and Nicholas Rescher (eds.). VALUES AND THE FUTURE. The impact of technological change on American values. New York: Free Press. 1969. 527 p.

Barber, Arthur. Global problem solving--a new corporate mission. INNOVATION. No. 15. October 1970. pp. 2-11.

Bauman, Zygmunt. The limitations of "perfect planning." In ACTION UNDER PLANNING (B.M. Gross, ed.). 1967. pp. 109-135.

Beckhard, Richard. ORGANIZATION DEVELOPMENT: strategies and models. Reading, Mass.: Addison-Wesley. 1969. 119 p.

Beer, Stafford. The aborting corporate plan--a cybernetic account of the interface between planning and action. In PERSPECTIVES OF PLANNING (E. Jantsch, ed.). 1969. pp. 397-424.

_____. The cybernetic cytoblast: management itself. In PROGRESS OF CYBERNETICS (J. Rose, ed.). 1970. pp. 65-85.

_____. CYBERNETICS AND MANAGEMENT. New York: Wiley Science Editions. 1959. 214 p.

_____. DECISION AND CONTROL. The meaning of operational research and management cybernetics. New York: Wiley. 1966. 556 p.

_____. The liberty machine. Keynote address to the Conference on THE ENVIRONMENT, organized by the American Society for Cybernetics in Washington, D.C., 8 October 1970. 15 p. (mimeo).

Beer, Stafford. MANAGEMENT SCIENCE. The business use of Operations Research. Garden City, N.Y.: Doubleday. 1967. 192 p.

_____. Managing modern complexity. In THE MANAGEMENT OF INFORMATION AND KNOWLEDGE (U.S. House of Representatives). 1970. pp. 41-62; reprinted in FUTURES magazine, June 1970. pp. 114-122.

Bennis, Warren G. CHANGING ORGANIZATIONS. Essays on the development and evolution of human organization. New York: McGraw-Hill. 1966. 223 p.

_____. A funny thing happened on the way to the future. AMERICAN PSYCHOLOGIST. Vol. 25, no. 7. July 1970. pp. 595-602.

_____. A new role for the behavioral sciences: effecting organizational change. ADMINISTRATIVE SCIENCE QUARTERLY. Vol. 8. 1963. pp. 125-165.

_____. ORGANIZATION DEVELOPMENT: its nature, origins, and prospects. Reading, Mass.: Addison-Wesley. 1969. 87 p.

_____., Kenneth D. Benne and Robert Chin. THE PLANNING OF CHANGE. New York: Holt, Rinehart and Winston. 1961; 1969. 627 p.

Bestuzhev-Lada, Igor. Forecasting--an approach to the problems of the future. INTERNATIONAL SOCIAL SCIENCE JOURNAL. Vol. 21, no. 4. 1969. pp. 526-534.

Blake, Robert R. and Jane S. Mouton. BUILDING A DYNAMIC CORPORATION THROUGH GRID ORGANIZATION DEVELOPMENT. Reading Mass.: Addison-Wesley. 1969. 120 pp.

Boguslaw, Robert. THE NEW UTOPIANS. A study of system design and social change. Englewood Cliffs, N.J.: Prentice-Hall. 1965. 213 p.

Bolan, Richard S. Emerging views of planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 33, no. 4. July 1967. pp. 233-245.

Boulding, Kenneth E. The ethics of rational decision. MANAGEMENT SCIENCE. Vol. 12, no. 6. August 1966. pp. B-161-169.

Boyce, David E., Norman D. Day, and Chris McDonald. METROPOLITAN PLAN MAKING. An analysis of experience with the preparation and evaluation of alternative land use and transportation plans. Philadelphia: Regional Science Research Institute. Monograph Series No. 4. 1970. 475 p.

Branch, Melville C. COMPREHENSIVE URBAN PLANNING: a selective annotated bibliography with related materials. Beverly Hills, Calif.: Sage Publications. 1970. 477 p.

_____. Delusions and diffusions of city planning in the United States. MANAGEMENT SCIENCE. Vol. 16, no. 12. August 1970. pp. B-714-732.

Brown, James K. et al. Long range planning in the USA--NICB survey. LONG RANGE PLANNING. Vol. 1, no. 3. March 1968. pp. 44-51.

Catanese, Anthony J. and Alan W. Steiss. Systematic planning--the challenge of the new generation of planners. JOURNAL OF THE TOWN PLANNING INSTITUTE. Vol. 54, no. 4. April 1968. pp. 172-176. reprinted in EKISTICS. Vol. 26, no. 153. August 1968. pp. 179-184.

Churchman, C. West. CHALLENGE TO REASON. New York: McGraw-Hill. 1968. 223 p.

_____. The design of inquiring systems. Berkeley: University of California, Space Sciences Laboratory, Social Sciences Project. December 1970. 241 p.

_____. On the facility, felicity, and morality of measuring social change. Berkeley: University of California, Space Sciences Laboratory, Social Sciences Project. Internal WP-120. August 1970. 11 p.

_____. The past's future. Berkeley: University of California, Space Sciences Laboratory, Social Sciences Project. Internal WP-118. March 1970. 15 p.

_____. Preparation for management: an assessment. Berkeley: University of California, Space Sciences Project. Internal WP-117. May 1970. 12 p.

_____. Setting the objectives of organizations. Berkeley: University of California, Space Sciences Laboratory, Social Sciences Project. Internal WP-110. November 1969. 12 p.

_____. Some notes on the organization of exoteric universities. Berkeley: University of California, Space Sciences Laboratory, Social Sciences Project. Internal WP-121. September 1970. 11 p.

_____. THE SYSTEMS APPROACH. New York: Dell. 1968. 243 p.

_____, and A.H. Schainblatt. The researcher and the manager: a dialectic of implementation. MANAGEMENT SCIENCE. Vol. 11, no. 4. February 1965. pp. B-69-87.

_____. On mutual understanding. MANAGEMENT SCIENCE. Vol. 12, no. 12. August 1966. pp. B-40-42.

Clemens, K. The priorities of planning. JOURNAL OF THE TOWN PLANNING INSTITUTE. Vol. 55, no. 7. July/August 1969. pp. 305-310.

Cripps, Eric L. A management system for planning. JOURNAL OF THE TOWN PLANNING INSTITUTE. Vol. 55, no. 5. May 1969. pp. 187-195.

Davidoff, Paul. Advocacy and pluralism in planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 31, no. 4. November 1965. pp. 331-337.

_____. Normative planning. In PLANNING FOR DIVERSITY AND CHOICE (S. Anderson, ed.). 1968. pp. 173-187.

_____ et al. Suburban action: advocate planning for an open society. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 36, no. 1. January 1970. pp. 12-21.

_____. and T.A. Reiner. A choice theory of planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 28, no. 3. May 1962. pp. 103-115.

Deva, Indra. The course of social change: a hypothesis. DIOGENES. Winter 1966. pp. 74-91.

Dole, S.H., G.H. Fisher, E.D. Harris and J. String, Jr. Establishment of a long-range planning capability. Santa Monica: RAND. RM-6151-NASA. September 1969. 107 p.

Doxiades, Constantinos. EKISTICS: an introduction to the science of human settlements. New York: Oxford University Press. 1968. 527 p.

Dyckman, John W. An evaluation of the 'choice' theory of planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 29. February 1963. pp. 19-27.

_____. New normative styles in urban studies. PUBLIC ADMINISTRATION REVIEW. Vol. 31, no. 3. May/June 1971. pp. 327-334.

_____. Planning and decision theory. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 27, no. 4. November 1961. pp. 335-345.

_____. Social planning, social planners, and planned societies. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 32, no. 2. March 1966. pp. 66-75.

Eldredge, H. Wentworth. Education for futurism in the United States: an on-going survey and critical analysis. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE. Vol. 2, no. 2. 1970. pp. 133-148.

Emery, F.E. (ed.). SYSTEMS THINKING. Selected readings. Baltimore: Penguin. 1969. 398 p.

_____. and O.A. Oeser. INFORMATION, DECISION AND ACTION. Melbourne: Melbourne University Press. 1958.

Emery, James C. ORGANIZATIONAL PLANNING AND CONTROL SYSTEMS. Theory and technology. New York: MacMillan. 1969. 166 p.

Erber, Ernest (ed.). URBAN PLANNING IN TRANSITION. New York: Grossman. 1970. 323 p.

Etzioni, Amitai. THE ACTIVE SOCIETY: a theory of societal and political processes. New York: Free Press. 1968.

_____. READINGS ON MODERN ORGANIZATIONS. Englewood Cliffs, N.J.: Prentice-Hall. 1969. 290 p.

_____. and Eva Etzioni (eds.). SOCIAL CHANGE. Sources, Patterns, and Consequences. New York: Basic Books. 1964. 503 p.

_____. and Sarajane Heidt. SOCIETAL GUIDANCE: a new approach to social problems. New York: Crowell. 1969. 332 p.

Faludi, A. The planning environment and the meaning of "planning". REGIONAL STUDIES. May 1970. Vol. 4, no. 1. pp. 1-9.

Forrester, Jay W. A new corporate design. In PERSPECTIVES OF PLANNING (E. Jantsch, ed.). 1969. pp. 425-448. Originally published in INDUSTRIAL MANAGEMENT REVIEW. Vol. 7, no. 1. Fall 1965.

_____. Planning under the dynamic influences of complex social systems. In PERSPECTIVES OF PLANNING (E. Jantsch, ed.). 1969. pp. 237-256.

Friedmann, John. The future of comprehensive urban planning: a critique. Los Angeles: UCLA. October 1969. 30 pp. (mimeo).

_____. The institutional context. In ACTION UNDER PLANNING (B.M. Gross, ed.). 1967. pp. 31-67.

_____. Introduction to the study and practice of planning. INTERNATIONAL SOCIAL SCIENCE JOURNAL (Special issue). Vol. 11, no. 3. 1959. pp. 327-339.

_____. A conceptual model for the analysis of planning behavior. ADMINISTRATIVE SCIENCES QUARTERLY. Vol. 21, no. 2. September 1967. pp. 225-252.

Friedmann, John. Notes on societal action. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 35, no. 5. September 1969. pp. 311-318.

_____. Planning as a vocation. PLAN. Part 1: Vol. 6, no. 3. pp. 99-124; Part 2: Vol. 7, no. 1. 1966. pp.8-26.

_____. Planning as innovation: the Chilean case, JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 32, no. 4. July 1966. pp. 194-203.

_____. Planning, progress and social values. DIOGENES. No. 17. Spring 1957. pp. 98-111.

_____. A response to Altshuler: comprehensive planning as a process. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 31, no. 3. August 1965. pp. 195-198.

Gabor, Dennis. Normative technological forecasting. TECHNOLOGICAL FORECASTING. Vol. 1, no. 1. June 1969. pp. 1-5.

_____. Open-ended planning. In PERSPECTIVES OF PLANNING (E. Jantsch, ed.). 1969. pp. 329-350.

Gadamer, Hans-Georg. Notes on planning for the future. DAEDALUS. Spring 1966. pp. 572-589.

Gakenheimer, Ralph A. (ed.). Process planning: symposium on programming and the new urban planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Special issue. Vol. 31, no. 4. November 1964. pp. 282-337.

Galbraith, John Kenneth. Technology, planning and organization. In VALUES AND THE FUTURE (K. Baier and N. Rescher, eds.). 1969. pp. 353-367.

Gans, Herbert J. THE LEVITTOWNERS: ways of life and politics in a new suburban community. New York: Pantheon Books. 1967. 474 p.

_____. PEOPLE AND PLANS: essays on urban planners and solutions. New York: Basic Books. 1968. 305 p.

Garrison, William L., et al. Prospects for innovative urban system control. Center for Urban Studies. Chicago: University of Illinois. September 1968. 43 p.

Gordon, Theodore J. The feedback between technology and values. In VALUES AND THE FUTURE (K. Baier and N. Rescher, eds.). 1969. pp. 148-192.

Granger, Charles H. The heirarchy of objectives. HARVARD BUSINESS REVIEW. May/June 1964. pp. 63-74.

Greniewski, Henryk. Intention and performance: a primer of cybernetics of planning. MANAGEMENT SCIENCE. Vol. 11, no. 9. Series A. July 1965. pp. 763-782.

Gross, Bertram M. (ed.). ACTION UNDER PLANNING. New York: McGraw-Hill. 1967.

_____. Management strategy for economic and social development. New York: United Nations. ESA/PA/MMTS/27. 27 September 1970. 102 p.

_____. THE MANAGING OF ORGANIZATIONS: The administrative struggle. New York: Free Press of Glencoe. 1964. 2 vols. 971 p.

_____. Planning in an era of social revolution. PUBLIC ADMINISTRATION REVIEW. Vol. 31, no. 3. May/June 1971. pp. 259-296.

_____. Planning the improbable. In ACTION UNDER PLANNING (B.M. Gross, ed.). 1967. pp. 1-30.

_____. Urban mapping for 1976 and 2000. URBAN AFFAIRS QUARTERLY. Vol. 5, no. 2. December 1969. pp. 121-142.

_____. What are your organization's objectives? A General Systems approach to planning. HUMAN RELATIONS. Vol. 18, no. 3. 1965. pp. 195-216.

_____. and Herman Mertins, Jr. (co-editors). Changing styles of planning in post-industrial America. PUBLIC ADMINISTRATION REVIEW. Vol. 31, no. 3. May/June 1971. pp. 253-403.

_____. and Michael Springer (special editors). Political intelligence for America's future. THE ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCES. Vol. 388. March 1970. 194 p.

Haetz, D.B. The management of innovation. MANAGEMENT REVIEW. April 1965. pp. 49-52.

Hagen, E.E. ON THE THEORY OF SOCIAL CHANGE: how economic growth begins. Homewood, Ill.: Dorsey Press. 1962. 557 p.

Haggerty, P.E. Corporate self renewal. LONG RANGE PLANNING. Vol. 1, no. 3. March 1969. pp. 9-15.

Hargreaves, D. Corporate planning--a chairman's guide. LONG RANGE PLANNING. Vol. 1, no. 3. March 1968. pp. 28-37.

Harris, Britton. The limits of science and humanism in planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 33, no. 5. September 1967. pp. 324-335.

_____. The new technology and urban planning. URBAN AFFAIRS QUARTERLY. Vol. 111, no. 2. December 1967. pp. 14-40.

Hart, A.G. ANTICIPATION, UNCERTAINTY AND DYNAMIC PLANNING. Chicago: University of Chicago Press. 1940.

Hart, R.I. Needs research. FUTURES. Vol. 1, no. 5. September 1969. pp. 445-457.

Hetrick, James C. A formal model for long range planning: 1. relating the company to the economy. LONG RANGE PLANNING. Vol. 1, no. 3. March 1969. pp. 16-23.

_____. A formal model for long range planning: 2. The assessment of opportunity and risk. LONG RANGE PLANNING. Vol. 1, no. 4. pp. 54-66.

Hill, Morris. A goals-achievement matrix for evaluating alternative plans. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 34, no. 1. January 1968. pp. 19-28.

Hirschmann, Albert O. DEVELOPMENT PROJECTS OBSERVED. Washington: Brookings Institution. 1967.

_____. The principle of the hiding hand. THE PUBLIC INTEREST. no. 6. Winter 1967. pp. 10-23.

Horowitz, Irving Louis. Engineering and sociological perspectives on development: Interdisciplinary constraints in social forecasting. INTERNATIONAL SOCIAL SCIENCE JOURNAL. Vol. 21, no. 4. 1969. pp. 545-556.

Hughes, H.K. Cybernetics and the management of large systems. In GLOBAL SYSTEMS DYNAMICS (E.O. Attinger, ed.). 1970. pp. 66-75.

Hughes, James and Lawrence Mann. Systems and planning theory. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 35, no. 5. September 1969. pp. 330-333.

Humble, John W. Corporate planning and management by objectives. LONG RANGE PLANNING. Vol. 1, no. 4. June 1969. pp. 36-44.

INTERNATIONAL SOCIAL SCIENCE JOURNAL. Special issue on "Futurology". Vol. 21, no. 4. 1969. pp. 515-584.

Jantsch, Erich. Adaptive institutions for shaping the future. In PERSPECTIVES OF PLANNING (E. Jantsch, ed.). 1969. pp. 471-494.

_____. From forecasting to planning to policy sciences. POLICY SCIENCES. Vol. 1, no. 1. Spring 1970. pp. 31-48.

_____. Integrative planning of society and technology. FUTURES. Vol. 1, no. 3. March 1969. pp. 185-190.

_____. Integrative planning of technology. In PERSPECTIVES OF PLANNING (E. Jantsch, ed.). 1969. pp. 179-202.

_____. Integrating forecasting and planning through a function-oriented approach. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 426-450.

_____. Integrative planning for the 'joint systems' of society and technology--the emerging role of the University. EKISTICS. Vol. 28, no. 168. November 1969. pp. 371-380.

_____. Inter- and transdisciplinary university: a systems approach to education and innovation. POLICY SCIENCES. Vol. 1, no. 4. December 1970. pp. 403-428.

_____. New organizational forms for forecasting. TECHNOLOGICAL FORECASTING. Vol. 1, no. 2. Fall 1969. pp. 151-162.

_____. A new role for universities. INNOVATION 4. 1969. pp. 18-27.

_____. The organization of technological forecasting in the Soviet Union. TECHNOLOGICAL FORECASTING. Vol. 1, no. 1. June 1969. pp. 83-86.

_____. PERSPECTIVES OF PLANNING. Paris: Organization for Economic Co-operation and Development. 1969. 527 p.

_____. Technological forecasting in corporate planning. LONG RANGE FORECASTING. Vol. 1, no. 1. September 1968. pp. 40-50.

_____. Technological forecasting for planning and its institutional implications. EKISTICS. August 1968. pp. 150-161.

_____. Toward a methodology for systemic forecasting. TECHNOLOGICAL FORECASTING. Vol. 1, no. 4. Spring 1970. pp. 409-420.

Johnson, Avery. Information tools that decision-makers can really talk with. INNOVATION. no. 10. 1970. pp. 2-13.

Johnson, Avery R. Organization, perception, and control in living systems. INDUSTRIAL MANAGEMENT REVIEW. Vol. 10, no. 2. Winter 1969. pp. 1-15.

Jones, J. Christopher. The professions as inhibitors of socio-technical evolution. FUTURES. Vol. 2, no. 1. March 1970. pp. 24-34.

Jungk, Robert. Imagination and the future. INTERNATIONAL SOCIAL SCIENCE JOURNAL. Vol. 21, no. 4. 1969. pp. 557-562.

_____. Look-out institutions for shaping the environment. FUTURES. Vol. 1, no. 3. March 1969. pp. 227-231.

Katz, Daniel and Robert L. Kahn. THE SOCIAL PSYCHOLOGY OF ORGANIZATIONS. New York: John Wiley. 1966. 498 pp.

Kilbridge, Maurice D., Robert P. O'Block and Raul V. Teplitz. A conceptual framework for urban planning models. MANAGEMENT SCIENCE. Vol. 15, no. 6. February 1969. pp. B-246-266.

_____. URBAN ANALYSIS. Boston: Harvard University. 1970. 332 p.

Krieger, Martin. Envirospace, urbospace: what should be done when the "moon" goes over the mountain or thoughts on thinkeries. UC Berkeley: Center for Planning and Development Research. WP-117. March 1970. 15 pp.

_____. The life cycle as a basis for social policy and social indicators. UC Berkeley: Center for Planning and Development Research. WP-106. October 1969. 25 p.

_____. Modeling urban change. UC Berkeley: Center for Planning and Development Research. WP-102. September 1969. 32 p.

_____. New old-myths about old new-problems: the emerging rationale for our social scene. UC Berkeley: Center for Planning and Development Research. WP-119. April 1970. 15 p.

_____. The post-industrial family. UC Berkeley: Center for Planning and Development Research. WP-103. December 1969. 18 p.

_____. The poverty of policy for the environment. UC Berkeley: Center for Planning and Development Research. WP-110. November 1969. 31 p.

_____. Social indicators for the quality of individual life. UC Berkeley: Center for Planning and Development Research. WP- 104. December 1969. 26 p.

Krieger, Martin. Social space, societal policy and social theory. UC Berkeley: Center for Planning and Development Research. WP-105. October 1969. 10 p.

Kuhn, Alfred. THE STUDY OF SOCIETY: a unified approach. Homewood, Ill.: Dorsey Press & Richard D. Irwin, Inc. 1963. 810 p.

Lawrence, Paul R. and Jay W. Lorsch. DEVELOPING ORGANIZATIONS: diagnosis and action. Reading, Mass.: Addison-Wesley. 1969. 101 p.

Levien, Roger E. Institutions, innovation, and incentives. Santa Monica: RAND. P-4640. May 1971. 15 p.

Lewis, J. Perry. The invasion of planning. JOURNAL OF THE TOWN PLANNING INSTITUTE. Vol. 56, no. 3. March 1970. pp. 100-106.

Linstone, Harold A. A University for the Post-industry Society. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 263-282.

_____. When is a need a need? The problem of normative forecasting in a changing environment. TECHNOLOGICAL FORECASTING. Vol. 1, no. 1. June 1969. pp. 55-72.

Mannheim, Karl. FREEDOM, POWER AND DEMOCRATIC PLANNING. New York: Oxford University Press. 1950.

_____. IDEOLOGY AND UTOPIA. New York: Harcourt, Brace and Company. 1949.

_____. MAN AND SOCIETY IN AN AGE OF RECONSTRUCTION. New York: Harcourt, Brace and Co. 1949.

March, James G. (ed.). HANDBOOK OF ORGANIZATIONS. Chicago: Rand McNally & Co. 1965. 1237 p.

March, James Q. and Herbert A. Simon. ORGANIZATIONS. New York: Wiley. 1959. 262 p.

Mazisih, Bruce. Obsolescence and "Obsolescibles" in planning for the future. In PLANNING FOR DIVERSITY AND CHOICE (S. Anderson, ed.). 1968. pp. 155-172.

McClelland, David C. THE ACHIEVING SOCIETY. Princeton, N.J.: D. Van Nostrand. 1961. 512 p.

McLoughlin, J. Brian. URBAN AND REGIONAL PLANNING: a systems approach. New York: Praeger. 1969. 331 p.

Meier, Richard L. DEVELOPMENT PLANNING. New York: McGraw-Hill. 1965. 420 p.

Michael, Donald N. On coping with complexity: planning and politics. DAEDALUS. Fall 1968. Vol. 47, no. 4. pp. 1179-1193.

_____. THE UNPREPARED SOCIETY. Planning for a precarious future. New York: Basic Books. 1968. 132 p.

Miller, David C. Comprehensive long-range forecasting systems for management. In MANKIND 2000 (R. Jungk and J. Galtung, eds.). 1969. pp. 291-298.

Miller, David W. and Martin K. Starr. THE STRUCTURE OF HUMAN DECISIONS. Englewood Cliffs, N.J.: Prentice-Hall. 1967. 179 pp.

Miller, George A. THE PSYCHOLOGY OF COMMUNICATION. New York: Basic Books. 1967. 197 p.

_____, Eugene Galanter, and Karl H. Pribram. PLANS AND THE STRUCTURE OF BEHAVIOR. New York: Holt, Rinehart & Winston. 1960. 226 p.

_____. and Oscar Grusky (eds.). THE SOCIOLOGY OF ORGANIZATIONS: basic studies. New York: The Free Press. 1970. 592 p.

Mocine, Corwin R. Urban physical planning and the "new planning". JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 32, no. 4. July 1966. pp. 234-236.

Moles, Abraham. The future oriented society, axioms and methodology. FUTURES. Vol. 2, no. 4. December 1970. pp. 312-326.

Mondale, Walter F. (Senator). Some thoughts on "stumbling into the future". AMERICAN PSYCHOLOGIST. November 1967. pp. 970-973.

Ozbekhan, Hasan. The idea of a "look-out" institution. Santa Monica: SDC. SP-2017. 26 April 1967. 20 p.

_____. On some of the fundamental problems in planning. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 235-240.

_____. The role of goals and planning in the solution of the world food problem. In MANKIND 2000 (R. Jungk & J. Galtung, eds.). 1969. pp. 117-150.

Ozbekhan, Hasan. Technology and man's future. Santa Monica: SDC. SP-2494. 27 May 1966. 41 p.

_____. Toward a general theory of planning. In PERSPECTIVE OF PLANNING (E. Jantsch, ed.). 1969. pp. 47-158.

_____. The triumph of technology: "can" implies "ought". In PLANNING FOR DIVERSITY AND CHOICE (Stanford Anderson, ed.). 1968. pp. 204-235.

Perloff, Harvey S. Common goals and the linking of physical and social planning. PLANNING 1965. Chicago: American Society of Planning Officials. November 1965. pp. 170-184.

_____. Key features of regional planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 34, no. 3. May 1968. pp. 153-159.

_____. New directions in social planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 31, no. 4. November 1965. pp. 297-303.

_____. Social planning in the metropolis. In THE URBAN CONDITION (L. Duhl, ed.). 1963. pp. 331-347.

Perrin, Robert. Long range planning: the concept and the need. LONG RANGE PLANNING. Vol. 1, no. 1. September 1968. pp. 3-6.

Peterson, William. On some meanings of "planning". JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 32, no. 3. May 1966. pp. 130-142.

Piganiol, Pierre. Futurology and prospective study. INTERNATIONAL SOCIAL SCIENCE JOURNAL. Vol. 21, no. 4. 1969. pp. 515-525.

Polak, Fred L. PROGNOSTICS. A science in the making surveys the future. New York: Elsevier. 1971. 425 p.

_____. Toward the goal of goals. In MANKIND 2000 (R. Jungk and J. Galtung, eds.). 1969. pp. 307-331.

Rabinovitz, Francine F. CITY POLITICS AND PLANNING. New York: Atherton Press. 1969. 192 p.

Ramo, Simon. CENTURY OF MISMATCH. How logical man can reshape his illogical technological society. New York: David MacKay Co. 1970. 204 p.

_____. CURE FOR CHAOS. Fresh solutions to social problems through the systems approach. New York: David MacKay Co. 1969. 116 p.

Rea, Robert H. The design of integrated technological forecasting and planning systems for the allocation of resources. In PERSPECTIVES OF PLANNING (E. Jantsch, ed.). 1969. pp. 203-236.

_____. and Richard Foster. From technology forecaster to R & D planner. INNOVATION. No. 16. November 1970. pp. 43-49.

Rescher, Nicholas. A questionnaire study of American values by 2000 AD. In VALUES AND THE FUTURE (K. Baier and N. Rescher, eds.). 1969. pp. 133-147.

_____. Value-considerations in public policy issues of the year 2000. Santa Monica: RAND. P-3664. September 1967. 14 p.

_____. What is value change? A framework for research. In VALUES AND THE FUTURE (K. Baier and N. Rescher, eds.). 1969. pp. 68-109.

Richards, Ivor A. The secret of 'feedforward'. SATURDAY REVIEW. Vol. 51, no. 5. 3 February 1968. pp. 14-17.

Richta, Radovan and Ota Suic. Forecasting and the scientific and technological revolution. INTERNATIONAL SOCIAL SCIENCE JOURNAL. Vol. 21. no. 4. 1969. pp. 563-573.

Rubin, Theodore J. Technology, policy and forecasting. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 242-264.

_____. Toward information systems for environmental forecasting. In PERSPECTIVES OF PLANNING (E. Jantsch, ed.). 1969. pp. 287-306.

Schein, Edgar H. PROCESS CONSULATION: its role in organization development. Reading, Mass: Addison-Wesley. 1969. 147 p.

Scott, Mel. AMERICAN CITY PLANNING SINCE 1890. Berkeley: University of California Press. 1969. 745 p.

Seamans, Robert C. Action and reaction. TECHNOLOGICAL FORECASTING. Vol. 1, no. 1. June 1969. pp. 17-32.

Shull, Fremont A. and Andre L. Delbecq (eds.). SELECTED READINGS IN MANAGEMENT. Extensions and modifications. Homewood, Ill.: Richard D. Irwin. 1962. 573 p.

Simmons, W.W. Corporate planning: the keystone of the management system. LONG RANGE PLANNING. Vol. 1, no. 2. December 1968. pp. 2-9.

Smalter, Donald J. Analytical techniques in planning. LONG RANGE FORECASTING. Vol. 1, no. 1. September 1968. pp. 25-33.

_____. Anatomy of a long range plan. LONG RANGE PLANNING. Vol. 1, no. 3. March 1969. pp. 2-8.

Special issue on "Futurology." INTERNATIONAL SOCIAL SCIENCE JOURNAL. Vol. 21, no. 4. 1969. pp. 515-584.

Steger, Wilbur A. and T.R. Lakshmanan. Plan evaluation methodologies: some aspects of decision requirements and analytical response. In URBAN DEVELOPMENT MODELS (Highway Research Board). 1968. pp. 33-76.

Steiner, George A. Top management's role in planning. LONG RANGE PLANNING. Vol. 1, no. 4. June 1969. pp. 2-9.

Toffler, Alvin. Value impact forecaster--a profession of the future. In VALUES AND THE FUTURE (K. Baier and N. Rescher, eds.). 1969. pp. 1-33.

Walton, Richard E. INTERPERSONAL PEACEMAKING: confrontations and third-party consultation. Reading, Mass: Addison-Wesley. 1969. 151 p.

Webber, Melvin M. The new urban planning in American. JOURNAL OF THE TOWN PLANNING INSTITUTE. Vol. 54, no. 1. January 1968. pp. 3-10.

_____. Planning in an environment of change. Part 1: Beyond the Industrial Age. THE TOWN PLANNING REVIEW. Vol. 39, no. 3. October 1968. pp. 179-195.

_____. Planning in an environment of change. Part 11: Permissive planning. THE TOWN PLANNING REVIEW. Vol. 39, no. 4. January 1969. pp. 277-295.

_____. The roles of intelligence systems in urban-systems planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 31, no. 4. November 1965. pp. 289-296.

Wilson, A.G. Forecasting 'planning'. URBAN STUDIES. Vol. 6, no. 3. November 1969. pp. 347-367.

Wilson, Donna and Albert Wilson. Toward the institutionalization of change. Middletown, Conn.: Institute for the Future. WP-11. August 1970. 38 pp.

Winthrop, Henry. Total environment management, approach to the dilemmas of the affluent society. FUTURES. Vol. 2, no. 4. December 1970. pp. 332-340.

Worcester, Robert M. Managing change. LONG RANGE PLANNING. Vol. 3, no. 1. September 1970. pp. 31-35.

Young, Robert C. Goals and goal-setting. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 32, no. 2. March 1966. pp. 76-85.

Zollschan, G.K. and Walter Hirsch (eds.). EXPLORATIONS IN SOCIAL CHANGE. Boston: Houghton. Mifflin. 1964. 832 p.

FORECASTING TECHNIQUES

Abt, Clark C. An approach to methods of combined sociotechnological forecasting. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE. Vol. 2, no. 1. 1970. pp. 17-22.

Abt Associates Inc. Survey of the state-of-the-art: social, political, and economic models and simulations. Report prepared for the National Commission on Technology, Automation, and Economic Progress. In APPLYING TECHNOLOGY TO UNMET NEEDS, Appendix Vol. V, TECHNOLOGY AND THE AMERICAN ECONOMY. Washington: GPO. February 1966. pp. 209-239.

Adelson, Marvin. The technology of forecasting and the forecasting of technology. Santa Monica: SDC. Paper no. SP-3151/000/01. April 1968. 20 pp.

Akzin, Benjamin. On conjecture in political science. POLITICAL STUDIES. Vol. 14, no. 1. February 1960. pp. 1-14.

Alonso, William. Predicting best with imperfect data. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 34, no. 4. July 1968. pp. 248-254.

Anshen, Melvin. The management of ideas. HARVARD BUSINESS REVIEW. July/August 1969. pp. 99-107.

Archibald, R.W. and R.B. Hoffman. Introducing technological change in a bureaucratic structure. Santa Monica: RAND. P-4025. February 1969. 31 pp.

Ayres, Robert U. TECHNOLOGICAL FORECASTING AND LONG-RANGE PLANNING. New York: McGraw-Hill. 1969. 237 pp.

Bayliss, D. Some recent trends in forecasting. London: Centre for Environmental Studies. Working paper 17. September 1968. 83 pp.

Bell, Daniel. The measurement of knowledge and technology. In INDICATORS OF SOCIAL CHANGE (E.B. Sheldon and W.E. Moore, eds.). 1968. pp. 145-246.

_____. Twelve modes of prediction: a preliminary sorting of approaches in the social sciences. DAEDALUS. Summer 1964. Vol. 93, no. 3. pp. 845-880.

Bird, John R. and Halvor T. Darracott. Developing and using the U.S. Army long range technological forecast. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 385-411.

Bratt, Elmer C. Methodology in long-range forecasting. THE COMMERCIAL AND FINANCIAL CHRONICLE. Vol. 191, no. 5922. 4 February 1960. pp. 10-11.

Bright, James R. The manager and technological forecasting. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 343-369.

_____. Opportunity and threat in technological change. HARVARD BUSINESS REVIEW. November/December 1963. pp. 76-86.

_____. (ed.). RESEARCH, DEVELOPMENT, AND TECHNOLOGICAL INNOVATION. Homewood, Ill.: Richard D. Irwin, Inc. 1964. 783 pp.

_____. TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT. Englewood Cliffs, N.J.: Prentice-Hall. 1968. 484 pp.

_____. TECHNOLOGICAL PLANNING ON THE CORPORATE LEVEL. Proceedings of a conference sponsored by the Associates of the Harvard Business School, September 8-9, 1961. Boston: Harvard University Press. 1962. 253 pp.

Brown, J.H. and E.S. Cheaney. Report on a study of the future research activity and pertinent forecasting techniques for Batelle's trends in research study. Columbus: Batelle Memorial Instutute. 1965. 51 pp.

Bush, G.A. Prudent Manager forecasting: a new approach to long-range planning. HARVARD BUSINESS REVIEW. Vol. 39. May/June 1961. pp. 57-64.

Cantril, Handley. The prediction of social events. JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY. Vol. 33. 1938. pp. 369-389.

Cazes, Bernard. Long-range studies of the future and their role in French planning. In PLANNING FOR DIVERSITY AND CHOICE (S. Anderson, ed.). 1968. pp. 45-63.

Cetron, Marvin J. Forecasting technology. SCIENCE AND TECHNOLOGY. September 1967. pp. 83-92.

_____. TECHNOLOGICAL FORECASTING: a practical approach. New York: Gordon & Breach. 1969.

_____. Technological forecasting: a prescription for the military R & D manager. NAVAL WAR COLLEGE REVIEW. Vol. 21, no. 8. April 1969.

_____. Using technical forecasts. SCIENCE AND TECHNOLOGY. July 1968.

_____. and Bodo Bartocha. A forecasting model to aid research and development planning. FUTURES. Vol. 1, no. 6. December 1969. pp. 479-487.

Cetron, Marvin J. A method for integrating goals and technological forecasts into planning. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE. Vol. 2, no. 1. 1970. pp. 23-52.

_____. and D.N. Dick. Producing the first Navy technological forecast. TECHNOLOGICAL FORECASTING. Vol. 1, no. 2. Fall 1969. pp. 185-196.

_____. and Joseph Martino, et al. The selection of R & D program content--survey of quantitative methods. IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT. Vol. EM-14, no. 1. March 1967. pp. 4-13.

_____. and Thomas I. Monahan. An evaluation and appraisal of various approaches to technological forecasting. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 144-182.

_____. and Donald F. Smith. Technological forecasting in military planning. In LONG RANGE FORECASTING METHODOLOGY (J. Martino, ed.). pp. 167-184.

Chavchanidze, Vladimir. Induction of psychointellectual activity in long-term forecasting and planning of research: psychoheuristic programming. TECHNOLOGICAL FORECASTING. Vol. 1, no. 2. Fall 1969. pp. 129-140.

Cheaney, E.S. Technical forecasting as a basis for planning, with an appendix, a technique for forecasting the attainability of technical concepts, by R.J. McCrory. ASME paper 66-MD-67, presented at the Design Engineering Conference, Chicago, Illinois. 9-12 May 1966. American Society of Mechanical Engineers, New York.

Churchman, C. West. PREDICTIONS AND OPTIMAL DECISION. Englewood Cliffs, N.J.: Prentice-Hall. 1961.

Commission on the Year 2000. The nature and limitations of forecasting. Working Session 2. 11-12 February 1966. DAEDALUS. Summer 1967. pp. 936-947.

Cornish, Edward S. The professional futurist. Washington: World Future Society. September 1967. 8 p. (mimeo).

Cress, H.A. and E.S. Cheaney. Determining design feasibility. ASME paper 63-MD-4, presented at the Design Engineering Conference, May 1963. American Society of Mechanical Engineers, New York.

Dalkey, Norman C. Predicting the future. Santa Monica: RAND. P-3948. 19 p.

Darracott, W.T., et al. Report on technological forecasting. Washington: CFSTI. Document no. 664 165. Inter-service Technological Forecasting Methodology Study Group. June 1967.

Darwin, Sir Charles. Forecasting the future. In FRONTIERS IN SCIENCE (Edward Hutchings, Jr., ed.). 1960. pp. 100-116.

David, Henry. Assumptions about man and society and historical constructs in futures research. FUTURES. Vol. 2, no. 3. September 1970. pp. 222-230.

Davidson, Frank P. Macro-engineering: a capability in search of a methodology. FUTURES. Vol. 1, no. 2. December 1968. pp. 153-161.

De Simone, Daniel. Education for innovation. IEEE SPECTRUM. January 1968.

Dockx, S. and R. Bernays, (eds.). INFORMATION AND PREDICTION IN SCIENCE. New York: Academic Press. 1965. 272 p.

Duhl, Leonard J. Planning and predicting: or what to do when you don't know the name of the variables. DAEDALUS. Summer 1967. pp. 779-788.

Duncan, Joseph W. A framework for forecasting socio-economic change. BATELLE TECHNICAL REVIEW. September 1966. pp. 9-13.

Edwards, Ward. Utility, subjective probability, their interactinn, and variance preferences. JOURNAL OF CONFLICT RESOLUTION. Vol. 6. 1962. pp. 42-51.

Enzer, Selwyn. A case study using forecasting as a decision-making aid. Middletown, Conn.: IFF. WP-2. December 1969.

Flechtheim, Ossip. Is futurology the answer to the challenge of the future? In MANKIND 2000 (R. Jungk and J. Galtung, eds). 1969. pp. 266-269.

Fontela, E. Introducing sociological forecasting into economic models of the future. FUTURES. Vol. 1, no. 5. September 1969. pp. 380-381.

_____, A. Gabus and C. Velay. Forecasting socio-economic change. SCIENCE JOURNAL. September 1965. pp. 81-88.

Foster, Richard N. and Robert H. Rea. An integrated technological forecasting and R & D planning system. FUTURES. Vol. 2, no. 3. September 1970. pp. 231-244.

Harman, Willis W. Notes on anticipating the future. Menlo Park: Stanford Research Institute, Educational Policy Research Center. December 1968. 17 p. (mimeo).

Hart, Hordell. Predicting future trends. In TECHNOLOGY AND SOCIAL CHANGE (F.R. Allen, et al., eds). New York: Appleton, Century, Crofts. 1957.

Hayashi, Yujiro. The direction and orientation of futurology as a science. Tokyo: Economic Planning Agency, Economic Research Institute. September 1968. 8 p. (mimeo).

Helmer, Olaf and T.J. Gordon, et al. Development of long-range forecasting methods for Connecticut: a summary. Middletown, Conn: IFF. September 1969.

_____. and Nicholas Rescher. On the epistemology of the inexact sciences. Santa Monica: RAND. R-353. February 1960. 40 p.

Hisic, Frank J. Techniques for measuring uncertainty in technological forecasting. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 110-115.

Huntley, James Robert. Gaps in the future. FUTURES. Vol. 2, no. 1. March 1970. pp. 5-14.

Ikle, Fred Charles. Can social predictions be evaluated? DAEDALUS. Summer 1967. pp. 733-758.

Isenson, Raymond S. Technological forecasting in perspective. MANAGEMENT SCIENCE. Vol. 13, no. 2. October 1966. pp. 70-83.

Israeli, N. Group predictions of future events. JOURNAL OF SOCIAL PSYCHOLOGY. Vol. 4. 1933. pp. 207-222.

Jantsch, Erich. Technological forecasting. Washington: World Future Society. May 1967. 11 p.

_____. Technological forecasting at national level in Japan: notes from a brief visit. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 325-328.

_____. TECHNOLOGICAL FORECASTING IN PERSPECTIVE. A framework for technological forecasting, its techniques and organization; a description of activities and annotated bibliography. Paris: Organization for Economic Co-operation and development. 1967. 401 p.

Jeoui, Hubert. Creativity methods in technological forecasting. FUTURES. Vol. 2, no. 4. December 1970. pp. 373-374.

Jestice, Aaron L. Technological forecasting and long-range corporate planning. McLean, Virginia: ALJ Associates. 1968. 107 p.

Johnston, Denis F. Forecasting methods in the social sciences. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE. Vol. 2, no. 2. 1970. pp. 173-188.

de Jouvenel, Bertrand. THE ART OF CONJECTURE. New York: Basic Books. 1967. 307 p.

Jungk, Robert. The secrecy factor in futures research. FUTURES. Vol. 2, no. 1. March 1970. pp. 4-5.

Lenz, Ralph C., Jr. TECHNOLOGICAL FORECASTING. Ohio: Wright-Patterson Air Force Base. June 1962. CFSTI no. AD 408 085.

Levien, Roger E. Projection of scientific evolution and technical progress--its role in society. Santa Monica: RAND. P-3995. November 1968. 26 p.

Lien, Arthur P., Paul Anton, and Joseph W. Duncan. Technological forecasting: tools, techniques, applications. AMA Management Association. 1968. 27 p.

Lilley, S. Can prediction become a science? DISCOVERY. November 1946. pp. 336-340.

Lisichkin, Vladimir A. The process of making forecasts. TECHNOLOGICAL FORECASTING. Vol. 1, no. 1. June 1969. pp. 97-104.

Lompe, Klaus. Problems of futures research in the social sciences. FUTURES. Vol. 1, no. 1. September 1968. pp. 47-53.

Lovewell, P.J. and R.D. Bruce. How we predict technological change. NEW SCIENTIST. No. 274. 15 February 1962. pp. 370-373.

Martino, Joseph P. Correlation of technological trends. TECHNOLOGICAL FORECASTING. Vol. 1, no. 4. Spring 1970. pp. 347-354.

_____. Technological forecasting and the autonomy of technology. TECHNOLOGICAL FORECASTING. Vol. 1, no. 1. June 1969. pp. 73-82.

_____. and Thomas Oberbeck. LONG-RANGE FORECASTING METHODOLOGY. A symposium held at Alamogordo, New Mexico. 11-12 October 1967. Air Force Office of Scientific Research. CFSTI no. AD 679 176. 191 p.

Martino, Joseph P. The use of technological forecasts for planning research. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 265-276.

McGregor, D. The major determinants of the prediction of social events. JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY. Vol. 33. 1938. pp. 189-209.

North, Harper Q. Technological forecasting and its role in planning. In LONG-RANGE FORECASTING METHODOLOGY (J. Martino, ed.). 1967. pp. 53-70.

Ogburn, William F. On predicting the future, and On predicting the social effects of invention. In THE SOCIAL EFFECTS OF AVIATION. New York: Houghton Mifflin. 1946. 755 p.

Pardee, Frederick S. State-of-the-art projection and long-range planning of applied research. Santa Monica: RAND. P-3181. July 1965.

_____. Technological projection and advanced product planning. Santa Monica: RAND. July 1967.

Peterson, M.S. The trouble with technological forecasting. SCIENCE, 144. 15 May 1964. pp. 795-796.

Prehoda, Robert W. DESIGNING THE FUTURE: the role of technological forecasting. New York: Chilton. 1967. 311 p.

Pyke, Donald L. Technological forecasting, a framework for consideration. FUTURES. Vol. 2, no. 4. December 1970. pp. 327-331.

Quinn, James Brian. Technological forecasting. HARVARD BUSINESS REVIEW. March/April 1967. pp. 89-106.

Roberts, Edward B. Exploratory and normative technological forecasting: a critical appraisal. TECHNOLOGICAL FORECASTING. Vol. 1, no. 2. Fall 1969. pp. 113-128.

Rolbiecki, Waldemar. Prognostication and prognoseology. In MANKIND 2000 (R. Jungk and J. Galtung, eds.). 1969. pp. 278-285.

Rosove, Perry E. A provisional survey and evaluation of the current forecasting state-of-the-art for possible contributions to long-range educational policy making. Santa Monica: SDC Tech Memo TM-3640/000/000. 28 August 1967. 37 p.

Rozeboom, William W. FOUNDATIONS OF THE THEORY OF PREDICTION. Homewood, Ill.: Dorsey Press. 1966. 628 p.

Schmidt, A.W., and D.F. Smith. Generation and application of technological forecasts for R & D programing. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 277-310.

Schon, Donald A. Forecasting and technological forecasting. DAEDALUS. Summer 1967. pp. 759-770.

SCIENCE JOURNAL editorial. Science in the crystal ball. SCIENCE JOURNAL. Vol. 2, no. 12. December 1966. p. 3.

Sheldon, Eleanor B., and Wilbert E. Moore, eds. INDICATORS OF SOCIAL CHANGE: concepts and measurements. New York: Russel Sage Foundation. 1968. 822 pp.

Siegel, Irving H. Technological change and long-run forecasting. THE JOURNAL OF BUSINESS OF THE UNIVERSITY OF CHICAGO. Vol. 26, no. 3. July 1953. pp. 141-156.

Sisk, John P. The future of prediction. COMMENTARY. March 1970. pp. 65-68.

Stern, Sol. Who thinks in a think tank (RAND)? NEW YORK TIMES MAGAZINE. April 1967. pp. 28, 110-122.

Sulc, Oto. A methodological approach to the integration of technological and social forecasts. TECHNOLOGICAL FORECASTING. Vol. 1, no. 1. June 1969. pp. 105-108.

Taylor, Calvin W. Unsolved problems in selecting experts in planning and long-range forecasting. In LONG-RANGE FORECASTING METHODOLOGIES (J. Martino, ed.). 1967. pp. 13-32.

Toch, Hans H. The perception of future events: case studies in social prediction. PUBLIC OPINION QUARTERLY. Spring 1958. pp. 57-66.

Vogel, Peter H. A basis for technological forecasting. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 313-324.

Von Leeuwen, Arend Theodoor. PROPHECY IN TECHNOGRATIC ERA. New York: Scribners. 1968.

Wells, Howard A. Technological forecasting in product planning, with emphasis on systems development. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 311-320.

Wills, Gordon. Technological forecasting: the art and its management. JOURNAL OF THE MARKET RESEARCH SOCIETY. April 1968. pp. 87-101.

Winthrop, Henry. Social costs and studies of the future. FUTURES. Vol. 1, no. 6. December 1969. pp. 488-499.

_____. The sociologist and the study of the future. THE AMERICAN SOCIOLOGIST. Vol. 3, no. 2. May 1968. pp. 136-145.

Zwicky, F., and A.G. Wilson (eds.). NEW METHODS OF THOUGHT AND PROCEDURE. New York: Springer-Verlag. 1967. 338 p.

SELECTED FORECASTING TECHNIQUES

Brainstorming:

Clark, Charles H. BRAINSTORMING--the dynamic new way to create successful ideas. Garden City, N.Y.: Doubleday. 1958. 262 p.

Gordon, William J.J. SYNECTICS: a new method of directing creative potential to the solution of technical and theoretical problems. New York: Harper & Row. 1961. 175 p.

Osborn, A.F. APPLIED IMAGINATION--principles and procedures of creative thinking. New York: Scribner's. 1957.

Contextual Mapping:

Kennedy, John L. The contextual map. Santa Monica: RAND. RM-1575. October 1955. 9 p.

_____. A display techniques for planning. Santa Monica: RAND. P-965. 23 October 1956. 10 p.

Rosove, Perry E. An analysis of possible future roles of educators as derived from a contextual map. Santa Monica: SDC. SP-3088. 8 March 1968. 63+ p.

_____. The use of contextual mapping to support long-range educational policy making. Santa Monica: SDC. SP-3026. 14 December 1967. 36 p.

Cross-Impact Matrices:

Enzer, Selwyn. Delphi and cross-impact techniques: an effective combination for systemic futures analysis. Middletown, Conn: Institute for the Future. WP-8. June 1970. 34 p.

Gordon, Theodore J. Cross-impact matrices. FUTURES. Vol. 1, no. 6. December 1969. pp. 527-531.

_____, and H. Hayward. Initial experiments with the cross-impact matrix method of forecasting. FUTURES. Vol. 1, no. 2. December 1968. pp. 100-116.

Gordon, Theodore J., et al. Research on cross-impact techniques with applications to selected problems in economics, political science, and technology assessment. Middletown, Conn.: Institute for the Future. R-12. August 1970. 171 p.

Gordon, Theodore J., Richard Rochberg, and Olaf Helmer. The use of cross-impact matrices for forecasting and planning. Middletown, Conn.: The Institute for the Future. April 1970. R-10. 63 p.

Johnson, Howard E. Some computational aspects of cross impact matrix forecasting. FUTURES. Vol. 2, no. 2. June 1970. pp. 123-131.

Rochberg, Richard. Information theory, cross-impact matrices, and pivotal events. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE. Vol. 2, no. 1. 1970. pp. 53-60.

Delphi:

Ament, Robert H. Comparison of Delphi forecasting studies in 1964 and 1969. FUTURES. Vol. 2, no. 1. March 1970. pp. 35-44.

Bernstein, G.B. SEER: a Delphic approach applied to information processing. TECHNOLOGICAL FORECASTING. Vol. 1, no. 1. June 1969. pp. 33-54.

Brown, Bernice B. Delphic process: a methodology for the elicitation of opinions of experts. Santa Monica: RAND. P-3925. September 1968. 15 p.

_____. Delphi process: a methodology used for elicitation of opinions of experts. ASTME VECTORS. Vol. 3, no. 1. 1968. pp. 4-8.

_____. Technological forecasting by iterative guesstimation. PRODUCT DESIGN AND VALUE ENGINEERING. Vol. 13, no. 9. October 1968. pp. 30-33.

_____, and Olaf Helmer. Improving the reliability of estimates obtained from a concensus of experts. Santa Monica: RAND. P-2986. September 1964. 13 p.

Brown, Bernice, S. Cochran and N. Dalkey. The Delphi method, II: structure of experiments. Santa Monica: RAND. RM-5957-PR. June 1969. 131 p.

Dalkey, Norman C. Analyses from a group opinion study. FUTURES. Vol. 1, no. 6. December 1969. pp. 541-551.

_____. The Delphi Method: an experimental study of group opinion. Santa Monica: RAND. RM-5888-PR. June 1969.

_____. Delphi. In LONG-RANGE FORECASTING METHODOLOGY (J. Martino, ed.). 1967. pp. 1-12.

Dalkey, Norman C. DELPHI. Santa Monica: RAND. P-3704. October 1967.

_____. An experimental study of group opinion. FUTURES. Vol. 1, no. 5. September 1969. pp. 408-426.

_____. Experiments in group prediction. Santa Monica: RAND. P-3820. March 1968.

_____. Predicting the future. Santa Monica: RAND. P-3948. October 1968.

_____, and B. Brown. Use of self-ratings to improve group estimates. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 283-292.

Dalkey, Norman C., B. Brown and S. Cochran. The Delphi Method III: use of self-ratings to improve group estimates. Santa Monica: RAND. RM-6115-PR. November 1969.

Enzer, Selwyn. A case study using forecasting as a decision-making aid. FUTURES. Vol. 2, no. 4. December 1970. pp. 341-362.

_____. Delphi and cross-impact techniques: an effective combination for systematic futures analysis. Middletown, Conn.: Institute for the Future. June 1970. WP-8. 29 p.

Gordon, Theodore J. The feedback between technology and values. In VALUES AND THE FUTURE (K. Baier & N. Rescher, eds.). 1969. pp. 148-192.

_____. New approaches to Delphi. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 134-143.

Helmer, Olaf. Analysis of the future: the Delphi Method. Santa Monica: RAND. P-3558. March 1967.

_____. Analysis of the future: the Delphi Method. In TECHNOLOGICAL FORECASTING FOR INDUSTRY AND GOVERNMENT (J.R. Bright, ed.). 1968. pp. 116-133.

_____. Convergence of expert consensus through feedback. Santa Monica: RAND. P-2973. September 1964.

_____. Methodology of societal studies. Santa Monica: RAND. P-3611. June 1967. 5 p.

_____. New developments in early forecasting of public problems: a new intellectual climate. Santa Monica: RAND. P-3576. April 1967. 10 p.

Helmer, Olaf. Political analysis of the future. Middletown, Conn.: IFF. P-1. August 1969.

_____. Prospects of technological progress. Santa Monica: RAND. P-3643. August 1967. 14 p.

_____. Simulating the values of the future. In VALUES AND THE FUTURE (K. Baier & N. Rescher, eds.). 1969. pp. 193-214.

_____. SOCIAL TECHNOLOGY. New York: Basic Books. 1966. 108 p.

_____. The systematic use of expert judgement in operations research. Santa Monica: RAND. P-2795. September 1963.

_____. Systemic use of expert opinions. Santa Monica: RAND. P-3721. November 1967.

_____. A use of simulation for the study of future values. Santa Monica: RAND. P-3443. September 1966. 36 p.

_____, and Raul de Brigard. Some potential societal developments: 1970-2000. Middletown, Conn.: Institute for the Future. April 1970. R-7. 139 p.

_____, and Bernice B. Brown. Improving the reliability of estimates obtained from a consensus of experts. Santa Monica: RAND. P-2986. September 1964.

_____, and T.J. Gordon. Report on a long-range forecasting study. Santa Monica: RAND. P-2982. September 1964. 45 p.

_____, and Nicholas Rescher. On the epistemology of the inexact sciences. Santa Monica: RAND. R-353. February 1960. 40 p.

Martino, Joseph. An experiment with the Delphi procedure for long-range forecasting. Arlington, Virginia: Air Force Office of Scientific Research. CFSTI Document no. AD 647 870. February 1967.

_____. The lognormality of Delphi estimates. TECHNOLOGICAL FORECASTING. Vol. 1, no. 4. Spring 1970. pp. 355-358.

_____. The precision of Delphi estimates. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 293-300.

North, Harper Q., and Donald L. P[illegible]. 'Probes' of the technological future. HARVARD BUSINESS REVIEW. May/June 1969. pp. 68-76+.

Osgood, Charles E., and Stuart Umpleby. A computer-based system for exploration of possible futures for Mankind 2000. Urbana: University of Illinois. August 1967. 13 p. (mimeo).

Overbury, R.E. Technological forecasting--a critism of the Delphi technique. LONG RANGE PLANNING. Vol. 1, no. 4. June 1969. pp. 76-77.

Pyke, Donald L. Mapping TRW's technological future. A paper prepared for the technological forecasting concepts and methodology conference. Industrial Management Center. Redondo Beach, California: TRW. January 1968. 10+ p. (mimeo).

_____. A practical approach to Delphi. FUTURES. Vol. 2, no. 2. June 1970. pp. 143-152.

_____. TRW's modified DELPHI technique. A paper prepared for the technological forecasting concepts and methodology conference, Industrial Management Center. Redondo Beach, California: TRW. January 1968 20+ p. (mimeo).

Rescher, Nicholas. Delphi and values. Santa Monica: RAND. September 1969. P-4182.

Sahr, Robert C. A collation of similar Delphi forecasts. Middletown, Conn.: Institute for the Future. WP-5. April 1970. 78 p.

Gaming:

Abt, Clark C. SERIOUS GAMES. New York: Viking Press. 1970. 176 p.

Duke, Richard D. Gaming urban systems. PLANNING 1965. Chicago: American Society of Planning Officials. November 1965. pp. 293-300.

Feldt, Allan G. Operational gaming in planning education. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 32, no. 1. January 1966. pp. 17-22.

Gordon, Theodore J., and S. Enzer. An experiment in simulation gaming for social policy analysis. TECHNOLOGICAL FORECASTING. Vol. 1, no. 3. March 1970. pp. 241-262.

Gordon, Theodore, Selwyn Enzer et al. A simulation game for the study of state policies. Middletown, Conn.: Institute for the Future. R-9. September 1969. 76 p.

House, Peter, and Philip D. Patterson, Jr. An environmental gaming-simulation laboratory. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 35, no. 6. November 1969. pp. 383-389.

Meier, Richard L. "Game" procedure in the simulation of cities. In THE URBAN CONDITION (L. Duhl, ed.). 1963. pp. 348-355.

_____. The gaming simulation in urban planning. PLANNING 1965. Chicago: American Society of Planning Officials. November 1965. pp. 286-292.

_____, and Richard D. Duke. Gaming simulation for urban planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 32, no. 1. January 1966. pp. 3-16.

Morphological Analysis:

Wilson, A.G. Morphology and modularity. In NEW METHODS OF THOUGHT AND PROCEDURE (F. Zwicky and A.G. Wilson, eds.). New York: Springer-Verlag. 1967. pp. 298-313.

Zwicky, Fritz. The morphological approach to discovery, invention, research and construction. In NEW METHODS OF THOUGHT AND PROCEDURE (F. Zwicky and A.G. Wilson, eds.). 1967. pp. 273-297.

_____. MORPHOLOGICAL ASTRONOMY. Berlin: Springer-Verlag. 1957. 293 p. (1-30, 282-290).

Scenario Writing:

Brown, Seyom. Scenarios in systems analysis. In SYSTEMS ANALYSIS AND POLICY PLANNING: applications in defense (E.S. Quade & W.I. Boucher, eds.). 1968. pp. 298-310.

Kahn, Herman, and Anthony J. Wiener. Use of scenarios. In THE YEAR 2000. 1967. pp. 262-264.

Science-Fiction:

Asimov, Isaac. I, ROBOT. New York: Signet. 1950. 192 p.

Bradbury, Ray. THE MARTIAN CHRONICLES. New York: Bantam. 1950; 1966. 181 p.

Calder, Nigel. Wells and the future. NEW STATESMAN. 23 September 1966. 427 p.

Capek, Karel. R.U.R. (Rossum's Universal Robots) (1928). In OF MEN AND MACHINES (A.O. Lewis, ed.). 1963. pp. 3-58.

_____. WAR WITH THE NEWTS. New York: Berkeley Medallion Books. 1937; 1967. 241 p.

Clarke, Arthur C. In defense of science-fiction. UNESCO COURIER. November 1962. pp. 14-17.

Clarke, I.F. The pattern of prediction 1763-1973: the impact of Jules Verne. FUTURES. Vol. 1, no. 5. September 1969. pp. 464-467.

Conklin, Groff (ed.). GREAT SCIENCE FICTION BY SCIENTISTS. New York: Collier. 1962. 313 p.

Eshbach, Lloyd A. (ed.). OF WORLDS BEYOND. The science of science-fiction writing. Chicago: Advent. 1964. 104 p.

Forster, E.M. The machine stops (1928). In COLLECTED STORIES OF E.M. FORSTER. London: Sidgwick and Jackson, Ltd. 1947. pp. 115-158.

Gernsback, Hugo. Ralph 124C41+: a romance of the Year 2660. AMAZING STORIES QUARTERLY. Winter 1929. 4+ p.

Hale, Edward Everett. The brick moon (1869). In THE BRICK MOON AND OTHER STORIES. Boston: Little, Brown and Co. 1899. pp. 3-99.

Heinlein, Robert A. THE WORLDS OF ROBERT A. HEINLEIN. New York: Ace Books. 1966.

Hilegas, Mark R. THE FUTURE AS NIGHTMARE: H.G. Wells and the Anti-Utopians. New York: Oxford University Press. 1967. 179 p.

Huxley, Aldous. BRAVE NEW WORLD. New York: Harper and Bros. 1932.

Livingston, Dennis. Science-fiction as a source of forecast material. FUTURES. Vol. 1, no. 3. March 1969. pp. 232-238.

Moskowitz, Sam. SEEKERS OF TOMORROW. Masters of modern science-fiction. New York: Ballantine. 1967. 450 p.

Orwell, George. 1984. New York: Signet. 1949; 1960. 256 p.

Philmus, Robert M. INTO THE UNKNOWN: The evolution of science-fiction from Francis Godwin to H.G. Wells. Berkeley: University of California Press. 1970. 224 p.

Skinner, B.F. WALDEN TWO. New York: MacMillan. 1948.

Vannegut, Krut, Jr. PLAYER PIANO. New York: Avon. 1952; 1969. 320 p.

Van Vogt, A.E. SLAN. New York: Berkeley Medallion Books. 1940; 1968. 191 p.

Verne, Jules. Robur the conquerer (1886). In WORKS OF JULES VERNE (C.F. Horne, ed.). New York: F. Tyler Daniels Co. 1911. pp. 3-144.

_____. 20,000 LEAGUES UNDER THE SEA. New York: Bantam. 1870; 1962. 371 p.

Wells, H.G. THE SHAPE OF THINGS TO COME. New York: MacMillan. 1933; 1945. 431 p.

_____. THE TIME MACHINE. New York: Bantam. 1895; 1968. 115 p.

_____. WHEN THE SLEEPER WAKES. New York: Ace Books. 1889; 1965. 288 p.

_____. WORLD BRAIN. Garden City, N.Y.: Doubleday, Doran & Co. 1937. 194 p.

Wylie, Philip, and Edwin Balmer. WHEN WORLDS COLLIDE. New York: Paperback Library. 1932; 1962. 192 p.

Simulation:

Ben-Shahar, Haim. Analytical methods in town planning. LONG RANGE PLANNING. Vol. 3, no. 1. September 1970. pp. 42-49.

Berger, Edward, Harvey Boulay, and Betty Zisk. Simulation and the city: a critical overview. SIMULATION & GAMES. Vol. 1, no. 4. December 1970. pp. 411-428.

Bocock, Sarane S. Using simulation games in college courses. SIMULATION AND GAMES. Vol. 1, no. 1. March 1970. pp. 67-79.

Boston Architectural Center. THE CITY AS A SYSTEM. Proceedings of the Boston Architectural Center Workshop Series on Environmental Design for Decision-Makers in Government, 1967-68. Boston: Boston Architectural Center. December 1968. 86 p.

Chapin, F. Stuart, Jr. Activity systems and urban structure. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 34, no. 1. January 1968. pp. 11-18.

_____. Selected theories of urban growth and structure. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS, XXX. May 1963. pp. 51-58.

Crecine, John P. Computer simulation in urban research. Santa Monica: RAND. November 1967. P-3734. 27 p.

_____. A dynamic model of urban structure. Santa Monica: RAND. P-3803. March 1968.

Forrester, Jay W. Systems analysis as a tool for urban planning. IEEE TRANSACTIONS ON SYSTEMS SCIENCE AND CYBERNETICS. Vol. SSC-6, no. 4. October 1970. pp. 258-265.

_____. URBAN DYNAMICS. Cambridge: MIT Press. 1969. 285 p.

_____. WORLD DYNAMICS. Cambridge: MIT Press. 1971. 142 p.

Hamilton, H.R. et al. SYSTEMS SIMULATION FOR REGIONAL ANALYSIS: an application to river-basin in planning. Cambridge: MIT Press. 1969. 407 p.

Harris, Britton. How to succeed with computers without really trying. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 33, no. 1. January 1967. pp. 11-17.

_____. Quantitative models of urban development: their role in metropolitan policy-making. In ISSUES IN URBAN ECONOMICS (H.S. Perloff & L. Wingo, eds.). 1968. pp. 363-410.

_____ (guest ed.). Urban development models: new tools for planning. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Special issue. Vol. 31, no. 2. May 1965. pp. 90-171.

_____. The uses of theory in the simulation of urban phenomena. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 32, no. 5. September 1966. pp. 258-272.

Highway Research Board. URBAN DEVELOPMENT MODELS. Washington: Highway Research Board (NAS/NAE). 1968. 266 p.

Holland, E.P. Principles of simulation. AMERICAN BEHAVIORAL SCIENTIST. September 1965.

Leven, Charles. Toward a theory of the city. In URBAN DEVELOPMENT MODELS (Highway Research Board). 1968. pp. 102-115.

Little, Dennis, and Richard Feller. STAPOL: a simulation of the impact of policy, values, and technological and societal developments upon the quality of life. Middletown, Conn.: Institute for the Future. October 1970. WP-12. 10 p.

Little, Dennis, Richard Rochberg, and Richard Feller. STAPOL: simulation game manual. Middletown, Conn.: Institute for the Future. February 1971. WP-13. 57 p.

Little, Dennis L. STAPOL: appendix to the simulation-game manual. Middletown, Conn.: Institute for the Future. October 1970. WP-14. 112 p.

Lowry, Ira S. A model for metropolis. Santa Monica: RAND. RM-4035LC. August 1964. 136 p.

_____. Seven models of urban development: a structural comparison. In URBAN DEVELOPMENT MODELS (Highway Research Board). 1968. pp. 121-163.

_____. A short course in model design. JOURNAL OF THE AMERICAN INSTITUTE OF PLANNERS. Vol. 31, no. 2. May 1965. pp. 158-165.

McLoughlin, J. Brian. Cities as open systems: a framework for analysis. ARCHITECTURAL DESIGN. June 1970. pp. 313-315.

_____. URBAN AND REGIONAL PLANNING: a systems approach. New York: Praeger. 1969. 331 p.

Rogers, Andrei. Activity allocation models in transportation planning. Berkeley: University of California. Institute of Urban and Regional Development. Working paper 84. September 1968. 60+ p.

Simon, Herbert A. MODELS OF MAN. Social and rational. New York: Wiley. 1957. 287 p.

Thomas, E.N., and J.L. Schofer. Toward the development of more responsive urban and transportation system models. HIGH SPEED GROUND TRANSPORTATION JOURNAL. Vol. 1, no. 2. May 1967. pp. 154-201.

Tocher, K.D. THE ART OF SIMULATION. London: English Universities Press. 1963. 184 p.

Wilson, A.G. Modelling and systems analysis in urban planning. NATURE. Vol. 220, no. 5171. 7 December 1968. pp. 963-966.

_____. Models in urban planning: a synoptic review of recent literature. URBAN STUDIES. Vol. 5, no. 3. November 1968. pp. 249-276.

_____. New planning tools. ARCHITECTURAL DESIGN. Vol. 39. September 1969. 488 p.

Social Indicators:

Bauer, Raymond A. (ed.). SOCIAL INDICATORS. Cambridge: MIT Press. 1966. 357 p.

Bell, Daniel. The idea of a social report. PUBLIC INTEREST. Spring 1969. pp. 72-84.

Boyce, David E. Toward a framework for defining and applying urban indicators in plan-making. URBAN AFFAIRS QUARTERLY. Vol. 6, no. 2. December 1970. pp. 145-171.

Center for Urban Studies, Wayne State University. Social reporting in Michigan: problems and issues. Detroit: Wayne State University. January 1970. 286 p.

Churchman, C. West. On the facility, felicity, and morality of measuring social change. Berkeley: University of California, Space Sciences Laboratory, Social Sciences Project. Internal WP-120. August 1970. 11 p.

_____, and Philburn Ratoosh. MEASUREMENT: definitions and theories. New York: John Wiley. 1962.

Dalkey, Norman C. Quality of life. Santa Monica: RAND. P-3805. March 1968. 24 p.

_____. Studies in the quality of life. Los Angeles: UCLA Institute of Government and Public Affairs. 1970. MR-142.

Dueker, Kenneth J. Urban information systems and urban indicators. URBAN AFFAIRS QUARTERLY. Vol. 6, no. 2. December 1970. pp. 173-178.

Duncan, Otis Dudley. TOWARD SOCIAL REPORTING: next steps, social science frontiers. New York: Russell Sage Foundation. 1969.

Gross, Bertram (special ed.). Social goals and indicators for American society. THE ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. 2 vols. June & September 1967. 603 p.

Gross, Bertram M. THE STATE OF THE NATION. Social systems accounting. London: Associated Books Publishers. 1966. 166 p.

Jones, Martin V., and Michael J. Flax. The quality of life in metropolitan Washington, D.C.: some statistical benchmarks. Washington: The Urban Institute. March 1970. 82 p.

Olson, Mancur. The plan and purpose of a social report. THE PUBLIC INTEREST. Spring 1969. pp. 85-97.

President's Research Committee on Social Trends. RECENT SOCIAL TRENDS IN THE UNITED STATES. New York: McGraw-Hill. 1933. 2 vols. 1568 p.

Sheldon, Eleanor Bernert. Notes on social indicators: promises and potential. POLICY SCIENCES. Vol. 1, no. 1. Spring 1970. pp. 97-112.

_____, and Wilbert E. Moore. INDICATORS OF SOCIAL CHANGE: concepts and measurements. New York: Russell Sage Foundation. 1968.

U.S. Department of Health, Education and Welfare. TOWARD A SOCIAL REPORT. Washington: GPO. 1969.

U.S. President's Commission on National Goals. GOALS FOR AMERICANS. New York: Prentice-Hall. 1960.

Systems Analysis:

Adelson, Marvin. The system approach--a perspective. SDC MAGAZINE. Vol. 9, no. 10. October 1966. pp. 1-9.

Affel, Herman A., Jr. System engineering. SCIENCE AND TECHNOLOGY. November 1964. pp. 18-26.

Churchman, C. West. THE SYSTEMS APPROACH. New York: Delta. 1969. 243 p.

Fanwick, Charles. The place of engineering analysis in handling social problems. Santa Monica: SDC. SP-2650. December 1966. 8 p.

Gale, Morten, and Paul Alelyunas. The systems man. SPACE/AERONAUTICS. December 1966. pp. 81-87.

Gibson, John E. Urban studies: an opportunity for systems engineering. In FUTURE FIELDS OF CONTROL APPLICATION (NASA SP-211). 1969. pp. 55-66.

Gillette, Dean. Systems Engineering--planning. In NEW METHODS OF THOUGHT AND PROCEDURE (F. Zwicky, ed.). 1967. pp. 73-84.

Goode, Harry H., and Robert E. Machol. SYSTEM ENGINEERING. An introduction to the design of large-scale systems. New York: McGraw-Hill. 1957. 551 p.

Hall, Arthur D. A METHODOLOGY FOR SYSTEMS ENGINEERING. Princeton: Van Nostrand. 1962. 478 p.

Hare, Van Court, Jr. SYSTEMS ANALYSIS, A DIAGNOSTIC APPROACH. New York: Harcourt, Brace & World. 1967.

Hoos, Ida R. Systems analysis as a technique for solving social problems--a realistic overview. UC Berkeley: Center for Planning and Development Research. WP-88. October 1968. 11 p.

Kahn, Herman. Techniques of systems analysis. Santa Monica: RAND. RM-1829-1. 1957. 154 p.

_____, and Irwin Mann. Ten common pitfalls (of systems analysis). Santa Monica: RAND. 17 July 1957. RM-1937. 55 p.

Kibbee, Joel M. The systems approach and the city. Santa Monica: SDC. SP-2618. October 1966. 10 p.

de Neufville, Richard. Systems analysis--a decision process. INDUSTRIAL MANAGEMENT REVIEW. Vol. 11, no. 3. Spring 1970. pp. 49-58.

Quade, E.S., and W.I. Boucher (eds.). SYSTEMS ANALYSIS AND POLICY PLANNING: applications in defense. New York: Elsevier. 1968. 453 p.

Ramo, Simon. CURE FOR CHAOS. Fresh solutions to social problems through the systems approach. New York: David McKay Co. 1969. 116 p.

Rechtin, Eberhardt. Systems engineering--but isn't that what I've been doing all along? ASTRONAUTICS & AERONAUTICS. June 1968. pp. 70-74.

Rowan, Thomas C. Systems analysis: problems, progress, and potential. Santa Monica: SDC. SP-2615. October 1966. 8 p.

Shea, Joseph F. Systems engineering--implementation. In NEW METHODS OF THOUGHT AND PROCEDURE (F. Zwicky and A.G. Wilson, eds.). 1967. pp. 85-96.

Whitehead, Clay T. Uses and limitations of systems analysis. Santa Monica: RAND. P-3683. September 1967. 182 p.

Wildavsky, Aaron. The political economy of efficiency: cost-benefit analysis, systems analysis, and program budgeting. PUBLIC ADMINISTRATION REVIEW. December 1966. pp. 292-310.

Zwick, Charles J. Systems analysis and urban planning. Santa Monica: RAND. P-2754. June 1963. 14 p.

Technology Assessment:

Black, Guy. Technology assessment: what should it be? Washington: George Washington University Program of Policy Studies in Science and Technology. June 1971. GWPS-SDP 211. 54 p.

Brooks, Harvey, and Raymond Bowers. The assessment of technology. SCIENTIFIC AMERICAN. Vol. 222, no. 2. February 1970. pp. 13-21.

Commoner, Barry. Present benefits and future risks. ENVIRONMENTAL SCIENCE AND TECHNOLOGY. Vol. 4, no. 8. August 1970. 625 p.

Daddario, Emillio. Technology assessment. TECHNOLOGY REVIEW. December 1967.

Glass, Bentley. For full technological assessment. SCIENCE. 22 August 1969. Vol. 165, no. 3895. 755 p.

Kohl, Walter H. Assessment, transfer, and forecasting of technology. IEEE SPECTRUM. Vol. 8, no. 1. January 1971. pp. 70-75.

Mayo, Louis H. The contextual approach to technology assessment: implications for "one-factor fix" solutions to complex social problems. Washington: George Washington University Program of Policy Studies in Science and Technology. April 1971. 83 p.

_____. Some implications of the technology assessment function for the effective public decision-making process. Washington: George Washington University Program of Policy Studies in Science and Technology. May 1971. 30 p.

National Academy of Engineering, Committee on Public Engineering Policy. A STUDY OF TECHNOLOGY ASSESSMENT. Report for the Committee on Science and Astronautics. U.S. House of Representatives. Washington: GPO. July 1969. 208 p.

National Academy of Sciences. TECHNOLOGY: PROCESSES OF ASSESSMENT AND CHOICE. Report for the Committee on Science and Astronautics. U.S. House of Representatives. Washington: GPO. July 1969.

Ruff, Larry E. The economic common sense of pollution. THE PUBLIC INTEREST. No. 19, Spring 1970. pp. 69-85.

_____. Technology assessment and the environment. Testimony before the Subcommittee on Science, Research and Development of the Committee on Science and Astronautics of the U.S. House of Representatives. March 13, 1970. 12 p. (mimeo).

Ruff, Larry E. Technology or institutions: which is the true challenge of the Seventies? Paper presented at the April 1970 meeting of The Institute of Environmental Sciences. 24 p. (mimeo).

Ruina, Jack P. Can we control the goose that is laying the golden eggs? INNOVATION. No. 16. November 1970. pp. 36-41.

Starr, Chauncey. Social benefit versus technological risk. SCIENCE. Vol. 165, no. 3899. 19 September 1969. pp. 1232-1238.

_____. Social benefit versus technological risk. In PROCEEDINGS OF SYMPOSIUM ON HUMAN ECOLOGY (PHS/HEW). 1969. pp. 24-39.

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